A MODIFIED DELPHI STUDY OF ENVIRONMENTAL FACTORS AFFECTING DECISION MAKING IN FLORIDA'S PUBLIC COMMUNITY COLLEGES

By

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Purpose

The purpose of this study was to identify and determine the order of importance of environmental factors which affect the choice of alternatives in those decisions relating to the management and administration of Florida's public community colleges.

Procedures

The study utilized a modified Delphi technique to identify and determine the importance ranking of environmental factors that affect the decision making process in Florida's public community colleges. A Delphi panel of 110 top-ranking community college administrators, representing twenty-four Florida community colleges, generated a list of twenty-three environmental factors which affect the choice of alternatives in the decision making process. These environmental factors were also ranked according to degree of importance.

Findings and Conclusions

Top-ranking administrators in Florida's public community colleges, who made up the Delphi panel, perceived of the environmental factors which affect the choice of alternatives in the decision making process in terms of 23 statements of environmental factors. These statements were made up of a total of 58 items.

From the findings of this study it was concluded that the respondents viewed factors that eminated from the governance structure as the most important environmental factors affecting their choice of alternatives in those decisions relating to the management and administration of their colleges during the 1976-77 academic year. In support of the above conclusion the ten environmental factors, that topped the list of findings, are state and environmental factors. In other words, the most important factors were perceived as those relating to the legal and formal organizational setting of the colleges.

Political and local community factors were rated of medium importance, indicating that, either Florida has a unique power structure where influence resides in formal organizations, or that the respondents who made up the Delphi panel in this study were not initiated in the ways of informal power structures and influentials that the literature indicated as highly important. Another interpretation of this finding may be that the respondents were thinking in terms of what "should be" instead of what "is."

The data also reflected the perceived importance of resources. The availability of financial resources, human resources,

information, physical resources, Federal financial aid programs, and time rated high importance. Respondents from colleges that participate in Federal programs rated the Federal factor with higher importance than respondents from colleges with low or no participation in such programs. This illustrated the growing influence of the Federal resources with continued use.

Looking at the data that were generated in this study as a whole, and taking into consideration the rated importance and rank of the identified environmental factors which affect the choice of alternatives in the decision making process in Florida's public community colleges, there emerged a picture of the environmental factors in relation to one another. In this picture the governing bodies, the legal and formal organizational settings and the availability of resources received the highest rated importance. This picture may not be surprising, but it makes these regulating factors the master and not the servant of community needs; the control over programs, not the resource to provide them.

CHAPTER I

INTRODUCTION

Overview

A study of the state of the art has indicated that the majority of materials on decision making available to students of educational administration was contributed by writers whose primary interest was in business or industry and not in education. The aim of this study was to contribute to the study of the decision making process in higher education. Those environmental factors that affect the choice of alternatives in the decision making process were studied and identified in the abstract in management science literature. To identify those environmental factors in the context of higher education and as perceived by top level community college administrators in Florida, a modified Delphi process was utilized.

Theoretical Assumptions

Organizational theory and the academic disciplines that contribute to the study of organizations have contributed significantly towards systematizing organizational and administrative practices. Literally reams of materials have been written on decision making for those involved in organizational life. Many writers, including Barnard, Cooper, Drucker, Griffiths, and Simon,

embrace the idea that central to any defensible theory of administration and organizational life is the process of decision making. Griffiths (1959) in his much quoted Administrative Theory enunciated this position when he wrote that "the decision making process is the central process in administration" (p. 52). McCammy (1947), in the same vein, stated that "the making of decisions is at the very center of the process of administration" (p. 41). Barnard (1938), in his classic in the field, The Functions of the Executive stated that

> . . . a characteristic of the services of executives is that they represent a specialization of the process of making organization decisions . . . and this is the essence of their functions. (p. 189)

When the literature on organizational theory was reviewed, it became readily apparent that there were basic theoretical assumptions underlying the study of decision making. A number of writers in the field touched these assumptions but the definitive statement was made by Griffiths (1959) who conceived these assumptions as:

> 1. Administration is a generalized type of behavior to be found in all human organizations (p. 71).

Griffiths suggested a departure from the concern for the adjective in administration. He saw the difference between educational administration and public administration as "adjectival." The differentiation within the field (i.e., elementary, vocational, post-secondary) was described as "subadjectival." He suggested the presence of enough common grounds to study

administration as descriptive of an aspect of life in a social organization without regard to the adjective and certainly not the subadjective.

> 2. Administration is the process of directing and controlling life in a social organization (p. 72).

Administration is not the result of organization but the work of maintaining the organization. Contrary to the Marxist notion, administration is not an artificial function superimposed on the normal activities of human beings; it is rather the process engaged in by the members of a social organization in order to control and direct the activities of the members within the organization.

In what he described as the "Management boom" Drucker (1974) discussed how even the communist countries, in an obvious break with Marxist thinking, and

> . . . beginning with the heretic Yugoslavs and followed by the Poles, the Hungarians, and the Czechs--set up management schools and management institutes, began to translate Western, especially American, management books, and began to teach management as the solution to economic stagnation. Ultimately even the Soviet Union succumbed. In 1969-70, it created two advanced management schools and simultaneously began--though with great hesitation--to talk about setting up autonomous managements in the major industries and major business enterprises. (p. 13)

Millet (1968) noted that this assumption certainly applied to higher education when he stated that

> Every organized enterprise must have a system of management, an administrative apparatus. A college or a university cannot exist without a structure and process of administration. (p. 8)

> 3. The specific function of administration is to develop and regulate the decision-making process in the most effective manner possible. (p. 73)

The function of the executive is to see to it that the decision making process proceeds in an effective manner. "It is the organization, not the executive, which does the work on the external environment. The executive is primarily concerned with decisions which facilitate or hinder in the effective or efficient operation of the organization" (Barnard, 1938, 211).

> 4. The administrator works with groups or with individuals with a group referrent, not with individuals as such. (p. 74)

A functionary in an organization is in an impersonal relationship with superiors or subordinates. This is in line with the Weberian (1964) notion of impersonality which he stated as follows:

> The dominance of a spirit of formalistic impersonality. "sine ira et studio"; without hatred or passion, and hence without affection or enthusiasm. The dominant norms are concepts of straight-forward duty without regard to personal considerations. (p. 340)

Stated simply, the administrator interacts with others in the organization primarily in terms of the group to which he or she belongs. This leads to improvement in the organization "to the extent that personal, irrational, and emotional factors are

eliminated from official acts. The result will be rational decision making and equitable treatment for subordinates" (Kimbrough & Nunnery, 1976, p. 55).

Decision Making Steps and Types

Review of the literature on decision making indicated that there are areas of general agreement among scholars in the field, although their actual statements differ as to length and categorization. Two such areas are types of decisions and steps in the decision making process.

Simon (1957) saw decisions as falling into two major categories which he labeled "programmed" and "nonprogrammed." He described them as follows:

> Decisions are programmed to the extent that they are repetitive and routine to the extent that a definite procedure has been worked out for handling them so they won't have to be treated de novo each time they occur. . . .
>
> Decisions are nonprogrammed to the extent that they are novel, unstructured, and consequential. There is no cut-and-dried method for handling the problem because it hasn't arisen before, or because its precise nature and structure are elusive or complex, or because it is so important that it deserves a custom-tailored treatment. (pp. 5-6)

March and Simon (1958) described two types of decisions as "reproductive" and "productive." They explained as follows:

> When problem-solving consists primarily in searching the memory in a relatively systematic fashion for solutions that are present there in nearly finished form, it is described as "reproductive." When the construction of new solutions out of more or less "raw" material is involved, the process is described as "Productive." (p. 177)

Barnard (1938, p. 190) saw three types of decisions which he described as "(a) authoritative communications from superiors; (b) cases referred for decision by subordinates; (c) cases originating in the initiative of the executive concerned." Griffiths (1959, pp. 98-102) used the same categorization as Barnard while clarifying and restating his categories as "intermediary decisions," "Appellate decisions," and "Creative decisions."

A summary of their descriptive statements follows:

1. Intermediary decisions or authoritative communications from superiors. These decisions involve the implementation and interpretation of decisions handed down by the top echelon. They may also be referred to as middle-management decisions, as they involve the administration of handed down policies. In the military these decisions may involve interpretation of orders or commands.

2. Appellate decisions or cases referred for decisions by subordinates. These decisions are usually handed up to the administrator from a subordinate. They may stem from subordinate incompetence, novelty of a situation, lack of clarity of directives, or from disputes between subordinates that need to be settled. They may also involve decisions of a serious nature in cases where what was handed down seemed morally wrong or harmful to the organization. "The control of the number of appellate cases lies in adequacy of executive organization, of personnel, of previous decision; and the development of the processes of informal organization. The test of executive action is to make these decisions

when they are important, or when they cannot be delegated reasonably, and to decline the others" (Barnard, 1938, p. 191).

In other words, the health of an organization is inversely proportional to the number of appellate decisions handled by the executive.

3. Creative decisions or decisions originating in the initiative of the executive concerned. This type of decision is distinguished from the preceding two by the fact that while the first two originated outside the person of the administrator who ultimately has to make the decision, creative decisions originate within the person of the administrator involved. They have been called by some originative decisions. This type of decision usually leads to changes in the direction or activities of the organization.

Other writers used more categories when describing types of decisions. Dilley (1970) listed seven types of decisions as follows:

> The seven basic types are (1) follow an accepted rule, (2) utilize a rational process, (3) act to gain social approval, (4) follow your intuition, (5) leave it to fate, (6) arrange a compromise, (7) consult an expert. (p. 111)

Further review of decision making literature also revealed general agreement among scholars in the field about the steps involved in the decision making process. Here again, different writers used different categories of various length in describing such steps.

Griffiths (1959) listed seven steps as follows:

1. Recognize, define and limit the problem.
2. Analyze and evaluate the problem.
3. Establish criteria or standards by which a solution will be evaluated or judged as acceptable and adequate.
4. Collect data.
5. Formulate and select the preferred solution or solutions.
6. Put the preferred solution into effect. The implementation should include the following:
   a. programming the solution
   b. controlling the program activities
   c. evaluation of the results of the process.

(p. 94)

Drucker (1967) explained the steps involved in the decision making process as follows:

> 1. The clear realization that the problem was generic and could only be solved through a decision which may set a precedent, a rule or a principle.
>
> 2. The definition of the specifications which the answer to the problem had to satisfy.
>
> 3. The thinking through of what is 'right,' that is, the solution which fully satisfies the specifications before attention is given to compromises, adaptations, and concessions needed to make the decision acceptable.
>
> 4. The building into the decision of the action to carry it out.
>
> 5. The 'feedback' which tests the validity and effectiveness of the decision against the actual course of events. (pp. 122-123)

Provus (1971, pp. 1-3) presented a three-step model for the decision making process which he called the analysis-action model. He described the first step in the model as that of realizing the discrepancy between "what is" (reality) and "what should be" (the standard). He saw this realization as the central issue in

decision making. This realization occurs because, in the mind of the decision maker, there exists a problem of dissonance between "what is" and "what should be."

In the second step the decision maker obtains discrepancy information from a congruence test between his model of "what should be," and his perceived reality of "what is." In the third step the decision maker seeks action. His action alternatives, according to this model, are to change reality, change the model, or do nothing.

From the above, it became evident that scholars in the field generally agreed as to the types of decisions and the steps involved in the decision making process.

The Environment of Decision and Higher Education Administration

An assumption that was often made or implied in the literature was that the decision making process is a neat, well ordered, and clear cut process. Witness to this is the discussion by different authors of "steps" in the decision making process and "types" of decision. Another assumption, showing the influence of simple economics, implies that the decision making process is seriously affected by the financial support factor. In other words the "owners" of the enterprise, in this case the legislature that appropriates funds for higher education or the major private donors, are the major factors that affect the choice of alternatives in the decision making process.

Another assumption is that it is the wishes of the "clientele," in this case the students, which play the major role in affecting the choice of alternatives. A fourth assumption is that in higher education, as in medicine for example, the professional specialists know what is best and hence play the major role in affecting the choice of alternatives in the decision making process.

The above list may be expanded in light of the statement that "one's view of decision making in the academic community is heavily coated by one's own vantage point" (Dobbins and Lee, 1968, p. 128).

This study was based on the assumption that none of the above stated assumptions represent an adequate explanation of the environmental factors that affect the choice of alternatives in the decision making process. Survey of the literature indicated the presence of environmental factors, both internal and external to an organization, that affect the choice of alternatives in the decision making process. Barnard (1938) recognized the presence of these environmental factors when he stated that:

> . . . the environment of decision . . . consists of atoms and molecules, agglomerations of things in motion, alive; of men and emotions; of physical laws and social laws, social ideas, norms of action, of forces and resistances. Their number is infinite and they are all always present. They are also always changing. (p. 197)

Cooper (1961) underlined the importance of these factors and saw that in order to produce consistently good decisions the executive must have

> A knowledge of the various forces of decision--the pressures and restraints

> of the past and the present, the interplay of forces in the environment and the behavior of people in the face of decision. (p. 2)

It is assumed that the decision making process in institutions of higher education is a complex social process involving numerous parties with vested interests. To understand better how the choice of alternatives in the decision making process contributes to, and hopefully complements, the study of decision making in higher education, this study was proposed.

A more complete and detailed discussion, identification, and documentation of environmental factors as described in the literature is found in Chapter II of this report.

Florida's Community Colleges

History and Organization

Palm Beach Junior College, a public two-year college established in 1933, was the only public junior college in Florida until 1947 when the status of St. Petersburg Junior College was changed from a private to a public junior college. Another important development in 1947 was the passage of a major legislative act, usually referred to as Florida's Minimum Foundation Program Law, which provided for combined state and local support of community colleges. Ten years later, another significant development took place in the shape of the 1957 report of the Community College Council entitled "The Community Junior College in Florida's Future." Outlined in this report was a plan to provide post-high school educational opportunities within commuting distance of 99% of the state's population. This report was adopted the same year

by the State Board of Education. This plan called for a system of twenty-eight community colleges, four of which were in operation at the time, to be established across the state. The last of these twenty-eight public community colleges was given Legislative approval in 1967 and was opened in September, 1972.

As for organization, Florida Statutes, Chapter 288.04(1)(b), defines community colleges as "educational institutions operated by local community college district boards of trustees under specific authority and regulations of the State Board and offering courses and programs of general and academic education parallel to that of the first and second years of work in institutions in the State University System, of occupational education and adult continuing education."

Administration and Financing

Initially, the community colleges were developed as parts of local school systems which are organized coterminous with county boundaries in Florida. These local school districts were operated by the local boards of public instruction. In 1968, the Florida legislature established independent local boards of trustees with authority to operate community colleges within the framework of state law and regulations. State-level coordination, in 1976-77, was being carried out by a Division of Community Colleges, a component of the State's Department of Education.

Until 1971, local boards of public instruction were required to provide basic financial support for the community colleges. In that year the counties were relieved of this responsibility and

the state assumed the total cost of operating the system with supplementary funds coming from student fees and federal grants.

Florida's Community College Student Population

During the Fall of 1976, when this study was started, there were 172,440 students enrolled in Florida's community colleges. Of these, 91,090 were part-time students and 81,350 were full-time students.

The Problem

Statement of the Problem

The purpose of this study was to identify and determine the order of importance of environmental factors which affect the choice of alternatives in those decisions relating to the management and administration of Florida's twenty-eight public community colleges during the 1976-77 academic year.

Procedures

The procedures used in compiling this study involved identification in the abstract of environmental factors that affect decision making in organizations. These were derived from a survey of management science literature. These factors, identified in the abstract, were then used for illustration and clarification in the first phase of a modified Delphi procedure.

Environmental factors, as perceived by top ranking community college administrators, were identified and ranked as to importance through this modified Delphi procedure. A complete discussion and explanation of the Delphi technique as used in this study appears in Chapter II.

Specifically, the procedures used in this study involved these three steps:

1. Identification of abstract environmental factors through a literature survey.
2. Identification of participants in this Delphi study.
3. Collection of data, a step which consisted of three phases as follows:
   a. Identification of the environmental factors by Delphi panel
   b. Importance ranking of identified environmental factors by panel (second questionnaire)
   c. Final importance ranking of identified environmental factors by panel (third questionnaire).

A detailed explanation of each step involved follows:

1. Identification of environmental factors. This step involved a survey of the scholarly literature in management sciences and organizational theory with the purpose of identifying, in the abstract, what writers in the field consider as environmental factors which affect the choice of alternatives in organizational decision making.
2. Identification of participants. Presidents of Florida's twenty-eight public community colleges were contacted and requested to identify for the writer those administrators whose primary responsibilities and duties dealt with top level managerial and administrative aspects of their colleges.
3. Collection of data. Data were collected in three phases as

follows: (a) identification of the environmental factors (first questionnaire), (b) importance ranking of identified environmental factors (second questionnaire), and (c) final importance ranking of identified environmental factors (third questionnaire).

3a. Phase I: Identification of the environmental factors (first questionnaire). The identified participants were sent the first questionnaire consisting of: (1) explanation of the study, including a list of identified environmental factors for the purpose of illustration and clarification. These were the factors identified in the abstract through a literature search in the management sciences, (2) an explanation of the Delphi technique as modified and used in this study, (3) the instrument, a form on which participants were asked to list what they thought were environmental factors that affect the choice of alternatives in those decisions relating to the management and administration of their community colleges.

3b. Phase II: Importance ranking of identified environmental factors (second questionnaire). Responses to the first open-ended questionnaire were reviewed, edited, and summarized. They were then listed in the second questionnaire. Participants were sent this second questionnaire and were asked to indicate their importance ranking of the identified environmental factors on a scale ranging from 1 ("minimum importance") to 5 ("maximum importance").

Participants were encouraged to make any additional comments they thought were pertinent in the "comment" space provided.

3c. Phase III: Final importance ranking of identified environmental factors (third questionnaire). Responses to the second questionnaire were used to calculate a consensus position for each of the identified environmental factors. The median (the point on a scale above and below which 50% of the responses are) was chosen as the most appropriate measure of central tendency.

The third questionnaire consisted of a listing of identified environmental factors that affect the choice of alternatives with the median (consensus) response to each item indicated. Individual rankings for each item on the second questionnaire were also marked, in order to offer each respondent the opportunity to compare his or her own individual ranking with the median (consensus) response to each item. The participants were then requested to evaluate the listed items again and to respond as follows: If their previous ranking on any item differed from the consensus (median), they were asked to (1) change their ranking to conform with the consensus, or should they dissent (2) state the reason why the consensus ranking of importance did not represent their opinion. A space for comments was provided. From this, a final importance ranking of identified environmental factors was developed and dissenting opinions for each item were also tabulated.

Responses to the third questionnaire were used to recalculate consensus importance ranking. A summary of dissenting opinion for each item was also prepared. The final step in this phase was to calculate a median, a mode, and a mean for each identified environmental factor.

Delimitations

The writer was aware of the following delimitations:

1. The possibility of unidentifiable selection bias resulting from the respondent selection process itself, or of selected respondents refusing to participate in the Delphi process.

2. The importance ranking assigned to environmental factors may have been affected in part by the respondents' current positions or job assignments rather than overall judgment.

3. Since environmental factors exist in part because of specific decisions being under consideration, the environmental factors identified in this study are only reflective of one point in time during which this investigation was conducted.

4. Time lag may have presented a threat to the internal validity of the compared results. Considering the time required for the completion of the Delphi process, it was possible for one or more respondents not to participate any further at some point during the process.

Limitations

This study concentrated on the identification and importance ranking of environmental factors which affect the choice of alternatives in those decisions affecting the management and ad-

ministration of community colleges. The study was restricted to those public community colleges in Florida which voluntarily participated during the 1976-77 academic year. It was also restricted in that the environmental factors were identified and prioritized exclusively by the use of a modified Delphi technique.

The study was further restricted by excluding the study of psychological processes involved in individual decision making. The emphasis of this study is upon organizational decision making.

The environmental factors, identified in the abstract in the first part of the study and used for illustration and clarification in the cover letter enclosed with the first questionnaire, may have influenced the type and number of factors identified by respondents in spite of the fact that the first questionnaire was open-ended.

While it may be hoped that the findings of this study have present and future implications for the management and administration of community colleges elsewhere, any such generalizations should be qualified.

Definition of Terms

Environmental Factors--elements, external or internal to an organization, that impact on its final choice of alternatives in the process of decision making. "Every such (decision making) situation . . . always involves in some degree physical, chemical, biological, physiological, psychological, economic, political, social, and moral elements" (Barnard, 1938, p. 207).

Decision--". . . one future state of affairs [selected] in preference to another and direct behavior toward a chosen alternative" (Simon, 1957, p. 46).

Decision making process--the creative process that a group or an organization goes through, the objective being the selection of one alternative from two or more.

Context of higher education--the summation of societal factors that impact on the operation and direction of higher education, i.e., legislative appropriation, faculty collective bargaining, and state of the economy.

Public Community College--a two-year post-secondary educational institution which is supported by and accountable to the public. Its functions usually include the following programs: (1) university parallel comparable to the first two years of a baccalaureate degree; (2) occupational, vocational, or career oriented programs; and (3) community services.

Delphi technique--a procedure for obtaining greater consensus among experts without face-to-face discussion, achieved through a carefully designed program of sequential individual interrogations, conducted by questionnaire with controlled opinion feedback, the first questionnaire being open-ended (Helmer and Rescher, 1959, p. 47).

Modified Delphi technique--the procedure set forth for using the Delphi Technique in this study.

Top level administrators--for the purposes of this study, this term signifies individuals in the second echelon of

responsibility after the president of a community college. Such individuals are usually assigned areas of responsibility such as academic affairs, admissions and records, administrative services, student personnel services, and physical plant.

Management and administration--for the purposes of this study, administration is defined as "the way by which an organization makes decisions and takes action to achieve its goals" (Campbell, Corbally, and Ramseyer, 1958, p. 179).

"Management is the primary force within organizations which coordinates the activities of the subsystems and relates them to the environment" (Kast and Rosenzweig, 1970, p. 6).

Organization of the Research Report

The research report contains five chapters, the first of which includes an introduction to the study made up of background materials, a statement of the problem, delimitations and limitations of the study, some theoretical assumptions underlying the study of decision making, a brief history and description of Florida's Community College System, a description of the procedures used and the sources of data, and definition of terms used. The second chapter is comprised of a review of selected and related literature. It covers the Delphi technique and environmental factors in decision making. The third chapter, entitled Design of the Study, includes a description of the collection of data, the study's participants, and college representation. The fourth chapter covers the presentation and analysis of data, while the

fifth and last chapter includes a summary of the study, findings, conclusions, and recommendations for further study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The literature on a subject like decision making is comprehensive and prolific to the point that, as a matter of practicality, only certain aspects of decision making may be addressed in a study of this scope. Decision making literature includes such areas as theory, steps, types, occasions, and environment of decisions. Some of these areas were touched upon in Chapter I while this chapter deals, in detail, with the environment of decision as perceived by writers in the administrative and managerial fields.

Also included in this chapter is a review of the Delphi technique. The purpose of this review was not the exhaustive coverage of the Delphi technique. Rather, the purpose of this review was to present enough materials to familiarize the reader with this technique in a general and broad manner in order to explain its use in this study.

The Delphi Technique

Delphi: History and Development

"Project DELPHI" as it was known was the name of an Air Force-sponsored RAND Corporation study, conducted in the early fifties, and dealt with possible Soviet atomic bomb attacks.

While with RAND, Dalkey and Helmer introduced in 1953 the feature of iteration and controlled feedback. This feature, added to the results of an ". . . intermittent series of studies at the RAND Corporation . . . concerned with the problem of using group information more effectively" (Dalkey et al., 1972, p. 20), led to the emergence of a set of procedures known as the Delphi technique. Since the original studies dealt with defense related matter, it was not till the early sixties (Dalkey and Helmer, 1963, pp. 458-467) that the Delphi technique received wide exposure.

The name Delphi is after the ". . . oracle at Delphi, on the slopes of Parnassus in Pnocis, (where Apollo) the Pythian god made known the future to those who consulted him " (Gayley, 1939, p. 27). Nevertheless, there is little that is oracular about this technique as it consists of ". . . a carefully designed program of sequential interrogations (with questionnaires) interspersed with information and opinion feedback " (Cyphert and Gant, 1971, p. 272).

The traditional approach for reaching consensus usually involves face-to-face round-table discussion among those concerned in order to achieve a group position or opinion. Unfortunately this traditional method usually leads to a compromise often arrived at under the influence of certain psychological factors such as ". . . professional status and high position. . . forcing judgments in certain directions" (Weaver, 1971, p. 270). Cyphert and Gant went a step further and suggested that occasionally "even merely the loudest voice" (1971, p. 272) may play a role in influencing the outcome of such meetings.

Another type of noise that may influence face-to-face roundtable discussions is semantic noise. "Much of the communication in a discussion group has to do with individual and group interests, not with problem solving. This kind of communication, although it may appear problem oriented, is often irrelevant or biasing" (Dalkey et al., 1972, pp. 19-20). A third factor that may influence face-to-face round table discussions is the unwillingness to abandon opinions to which a public commitment was made (Pelz, 1958, p. 216).

A last factor that may influence face-to-face roundtable discussions is the pressure of majority opinion for conformity (Asch, 1958, pp. 174-183). In the Delphi technique on the other hand, ". . . anonymity is guaranteed the experts in the polling procedures, so that the social psychological pressures present in the usual committee and face-to-face group approaches . . . are avoided" (Welty, 1973, p. 129).

The Delphi Technique: Mechanics and Utilization

The Delphi technique then reduces the influence of the psychological factors discussed above. These included undue pressure from an older, powerful, or influential group member, the effects of semantic noise, unwillingness to abandon publicly expressed opinions, and the pressures of majority opinion or the bnad-wagon effect.

band

> The technique replaces direct debate by a carefully designed program of sequential individual interrogations (best conducted by questionnaire) interspersed with information and opinion feedback derived by computed consensus from the earlier parts

> of the program. Some of the questions directed to the respondents may, for instance, inquire into the 'reasons' for previously expressed opinions, and a collection of such reasons may then be presented to each respondent in the group, together with an invitation to reconsider and possibly revise his reasons, and subsequent feedback of the reasons adduced by others may serve to stimulate the experts into taking into due account considerations they might through inadvertence have neglected, and to give due weight to factors they were inclined to dismiss as unimportant on first thought. (Helmer & Rescher, 1959, p. 47)

The Delphi technique has evolved with the following features:

> (1) Anonymous response--opinions of members of the group are obtained by formal questionnaire, (2) Iteration and Controlled Feedback--interaction is effected by a systematic exercise conducted in several iterations, with carefully controlled feedback between rounds, (3) Statistical group response--the group opinion is defined as an appropriate aggregate of individual opinions on the final round. These features are designed to minimize the biasing effects of dominant individuals, of irrelevant communications, and of group pressure toward conformity. (Weaver, 1972, p. 1)

As to the steps involved in such a procedure, Peterson (1970, p. 9) described the Delphi technique as follows:

1. Participants are asked to list their opinions on a specific topic, such as recommended activities or predictions for the future.

2. Participants are then asked to evaluate the total list against some criterion, such as importance, chance of success, etc.

3. Each participant receives the list and a summary of responses to the items and,

if in the minority, is asked to revise his opinion or indicate his reason for remaining in the minority.

4. Each participant again receives the list, an updated summary of responses, a summary of minority opinions, and a final chance to revise his opinions.

As to possible weaknesses that may diminish the effectiveness of the Delphi Technique, it may be noted that

> While the written word allows for emotional content, the Delphi process does tend to minimize the feelings and information normally communicated in such manners as the tone of a voice, the gesture of a hand, or the look of an eye. In many instances these are a vital and highly informative part of a communication process. (Linstone and Turoff, 1975, p. 7)

In addition to the above, several specific potential weaknesses, that may develop and lead to diminished effectiveness of a Delphi Technique application, were outlined by Linstone and Turoff (1975, p. 6). They are as follows:

> Imposing monitor views and preconceptions of a problem upon the respondent group by overspecifying the structure of the Delphi and not allowing for the contribution of other perspectives related to the problem.
>
> Assuming that Delphi can be a surrogate for all other human communications in a given situation.
>
> Poor techniques of summarizing and presenting the group response and ensuring common interpretations of the evaluation scales utilized in the exercise.
>
> Ignoring and not exploring disagreements, so that discouraged dissenters drop out, and an artificial consensus is guaranteed.

As for utilizing the Delphi Technique, "one of the most

obvious uses of the Delphi Technique in education would seem to be its use in finding consensus as to values or evaluations" (Judd, 1972, p. 38). Indeed, a survey of reported studies, the Cyphert and Gant Study in Virginia, 1970, the Anderson Study in Ohio, 1970, the Little Study in Florida, 1974, and the Smith Study in Florida, 1975, indicated a certain shift in application, at least in the field of education, from utilization of the Delphi as a tool for prediction to utilization as a consensus gathering tool. As such, this tool is particularly suited for work with large groups of experts in a field whose members may be geographically dispersed, and where several mass group meetings may be impractical.

In light of the above, the Delphi Technique modified to suit the purposes of this study was chosen as the appropriate methodology for studying environmental factors affecting decision making in Florida's community colleges.

The Environment of Decision: Introduction

The environment of decision is a subject that is mentioned by several writers in the field, but almost never discussed in depth or detail. Indeed, Chester Barnard's 1938 classic, The Functions of the Executive, was found to contain the most clear, most definitive, and most quoted statement on the subject to date.

The reader must note that the environment of decision, whether physical or social, usually exists as a set of factors. To discern and discriminate, to thrash chaff from grain, the irrelevant and immaterial from the important and influential, is a

process which separates the effective from the ineffectual decision maker. Once this process is achieved, it becomes a question of choice, since

> . . . the objective in decision-making is to choose from various alternatives the one that will provide the greatest amount of wanted consequences and the smallest amount of unwanted consequences. (Haimann, 1962, p. 115)

The alternatives here are "either to utilize favorable factors, to eliminate and circumvent unfavorable factors, or to change the purpose" (Barnard, 1938, p. 197), for the purpose, in a sense creates the environment, and each new purpose has its own set of environmental factors.

Those environmental factors that affect the choice of alternatives in the decision making process were identified by various names in the literature, depending on the academic discipline of the author. To those in the sciences it is the "limiting factor," while Likert (1961) talked about "situational requirements" that are ". . . hard, objective realities . . . which impose limitations on the decision-making process" (p. 112).

Cooper (1961) referred to "forces of decision" which he explained as

> . . . the pressures and restraints of the past and the present, the interplay of forces in the environment, and the behavior of people in the face of decision (p. 2).

Commons (1934) termed these factors as "strategic factors" (p. 629) and Barnard (1938) adopted the same term (p. 202).

Lieberman (1972) recognized the presence of such factors but did not use a special term to describe them as did the other writers above. He discussed the uncertainty of decision makers at decision time due to a variety of personal, regional, and differing interests as well as external pressures (p. 42).

The importance of recognizing and understanding the dynamics and importance of the environment of decision was underlined by Barnard (1938) who saw that

> . . . the ultimate end, may not be a result of logical (decision-making) processes, but "given"--that is impressed--by conditions, including social conditions past or present, including orders of organizations (p. 185).

The important role played by factors of the environment in influencing the outcome of the decision making process was also underlined by Cooper (1961):

> All the influences and conditions which surround the decision-making problem constitute its environment . . . In an ultimate sense all decisions must bow to the pressures of the environment (p. 7).

By whatever name they are called, be it "limiting factors," "situational requirements," "forces of decision," or "strategic factors" the importance of environmental factors that affect the choice of alternatives in the decision making process is clearly recognized and appreciated by writers in the field. The question then becomes one of specifying environmental factors. At this juncture, it must be emphasized that a comprehensive list or catalogue of environmental factors as such, was not available in the literature at the time this study was conducted.

Different writers recognized various environmental factors and described what they thought as important depending on their academic disciplines or vantage points. Some writers concentrated on political factors, others on economic factors, to the exclusion of other factors, and so on. This study is based on the assumption that a dichtomous view of the environment of decision, where factors are mutually exclusive, is incomplete at best. Rather, the environment is viewed as made up of numerous factors in continuous interplay, exerting varying amounts of influence at different times.

For lack of a better classification, the environmental factors that affect the choice of alternatives in the decision making process, and for the purposes of this study, were classified into two broad categories. The first category was called, factors of cost. The second category was called, factors of interests, politics, and power.

The Environment of Decision: Factors of Cost

It is customary in the field of systems analysis to express inputs of a system in terms of physical quantities such as people or manhours, equipment or space. Ultimately, all such physical quantities can be translated into financial resources, hence the designation, factors of cost. These factors are usually measurable or quantifiable.

During the decision making process and when facts, intelligence, and information are being gathered, the decision maker

typically may ask, "Do I have enough facts, intelligence or information?" He or she thinks in terms of quantity available or needed which leads to the question of the cost in terms of fact, intelligence, or information. After a satisfactory "quantity" or "enough" information has been obtained, various alternatives are considered. Again the questions typically raised by decision makers at this point are in terms of "how much?" or questions of measure and quantity. Questions such as, how many people or manhours are needed? How much space is needed? What level of technology is needed? At what cost in financial resources? How many pieces of equipment are needed? and so on. In other words, this category, labeled as factors of cost, deals primarily with the quantifiable and measurable factors of the environment. It may be said here that a rather

> . . . common basis of decision is to select that course of action which is expected to yield the greatest return for the least commitment or expenditure of resources, whether financial, material, human or temporal. (Cooper, 1961, p. 59)

In other words, the greatest goal achievement for the least cost is desirable.

Factors of Cost: Information

Information as a factor of cost in the environment of decision was studied in the literature in terms of: What is information? Sources of information, and how much information?

What is information? During the initial stages of the decision making process, when the decision maker attempts to define the problem on hand and select viable alternatives, it is

imperative to know what is real, factual information, and what is otherwise. As viewed by Cooper (1961)

> . . . one of the keys to success in a truly dynamic enterprise is that it sets up safeguards to assure that decisions are made in the light of facts rather than desires or wishful thinking.(p. 15)

Information may be thought of in terms of data, intelligence, facts, knowledge, but not in terms of opinions, wishes, hopes or desires.

Why should information be gathered? The importance of information and why it should be gathered is underlined by the fact that "when no reliable data exists to support logical thought processes, an individual must make a decision that is guided by pure emotion, instinct, or adherence to tradition" (Benton, 1973, p. 114). This would contradict the classical bureaucratic model--on which most modern organizations are based at least in part--where decision making is supposed to be free of personal, irrational, and emotional factors.

Once information is accepted as the basis for rational decision making, its gathering becomes a most important step in the decision making process because

> The fact-finding phase brings out the various possibilities of action (including taking no action). The decision-maker compares the expected outcomes of these and, from among them, chooses that course which he believes will bring the most desirable return.(Cooper, 1961, p. 51)

Yet, it would be naive to assume that this rational process, whose purpose is the good of the organization as a whole, is the

only objective rational information gathering that takes place. For although

> Information necessary for the operation of the organization is depicted as flowing along these formal paths, . . . in reality, the people in the organization also develop subsidiary information systems so that decisions can be made for personal security or intrinsic interests, as well as for organizational coordination and synchronization. (McDonnell, 1974, p. 189)

Sources of information. Assuming that the decision maker has defined "information" and answered the question of what is information, and assuming also that he or she has satisfactorily answered the question of why information should be gathered, then the question becomes: What are the sources of information? From a systems theory point of view

> . . . the environment is teeming with signals, symbols, and events as potential information to a system. This potential information in the environment may not ever be translated or organized as information for a system. (Chin, 1976, p. 108)

The ability to discern and interpret this information distinguishes the effective decision maker from the ineffectual one. A historical example here is the attack on Pearl Harbor at the onset of WW II. The signs and symbols, some historians argue, were all there, yet those in charge failed to discern and interpret those signs and symbols into information that spells out: attack eminent.

On a different level Cooper (1961) pointed out to less abstract sources of information, which he listed as follows:

1. Regular informational reports generated within the organization.

2. Information derived as a by-product of work operations.

3. Reports of previous experience.

4. Opinions and judgments of specialists and experts.

5. Outside organizations and informational centers. (p. 37)

How much information? Ultimately, the decision maker arrives at a point where he asks do I have enough information? Do I have all the facts? Should a decision maker wait until 100% of the facts are available to him?

Cooper (1961) answered these questions stating that:

> One of the objectives of fact-finding is to narrow down the areas of uncertainty and not to try to eliminate them completely since that is rarely feasible. (p. 44)

Nevertheless, the question may still stand in the mind of the decision maker: Granted there is no need for 100% of the facts, but how much information is really necessary?

In terms of price theory, information ". . . should be gathered up to the point where the incremental cost of additional information is equal to the incremental profit that can be earned by having it" (Alexis & Wilson, 1967, p. 212).

Drucker (1954) addressed the same question and explained that in order

> to make a sound decision, it is not necessary to have all the facts; but it is necessary to know what information is lacking in order to judge how much of a risk the decision involves . . . . (p. 359)

To the same effect, Dr. Samuel Johnson is reputed to have observed that "Nothing will ever be attempted if all possible objections must first be overcome."

Factors of Cost: Technology

Although it may be argued that technology as an environmental factor can be reduced to a dollar figure and thus included under financial resources as a factor of cost, technology is of such importance that it merits a separate though brief discussion. To illustrate the impact of technology on an organization, one may look at the field of data processing. Within the memory of most people working in organizations at the time of writing, certain operations were (and in some places still are) processed by hand. Specifically, payroll, personnel records, inventory, college registration and so on. Where computer technology is available to implement a certain decision on a routine basis, the cost of such a decision is certainly different from where a decision will need several people and numerous manhours to implement.

The importance of technology could be illustrated when one thinks of it as a vehicle, or means of implementing decisions. A decision, taken by the president of a college for example, to reduce the time involved in registration, could be feasible to implement, if adequate technology is made available. Conversely, efforts to cut down fuel consumption on a national level, have failed partly because no technological breakthrough--at least not an economical one--has been made. The campus, as an organization, like society at large, is not immune to these forces. Indeed,

"Just as there are economic forces shaping the campus, so there are forces arising from technology" (Gores, 1968, p. 282).

Factors of Cost: Time

It is said: Time waits for no one. During the process of decision making, facts are gathered, the problem on hand is defined, alternatives are weighed and considered and so on. The currency of this undertaking is time. The process of decision making may be seen as "one of the successive approximations--constant refinement of purpose, closer and closer discriminations of fact--in which the march of time is essential" (Barnard, 1938, p. 206).

Time must then be viewed, for the purposes of decision making, as an expendable and non-renewable resource. Generally speaking, this implies that:

> . . . the less time available and the more urgent the matter, the fewer will be the number of significantly different alternatives. (Cooper, 1961, p. 260)

The importance of considered and well studied alternatives cannot be overemphasized, if the appropriate decision is to be made. It may also be noted here, that many decisions are made by default, in cases where sufficient time for the decision making process is not made available.

Factors of Cost: Financial Resources

Folk wisdom has it that "he who pays the fiddler, calls the tune." Obviously then, the cost of a decision, in money, man-hours, or space and equipment, acts as a continuing restraint on the decision making process. Frequently legislators and elected

governmental officials, and particularly around election time, make statements about what a government should do to meet this or that social need. Pronouncements as to unemployment, poverty, criminal justice, health, and education are guaranteed to attract support from one segment of the population or another.

Nevertheless it must be realized that such "Policy decisions are expressions of pious platitudes unless carried out, and administration of action requires resources" (Millet, 1968, p. 14).

In other words, effective decision making takes this fact into account and the acquisition of resources necessary for implementation is built into the decision. Yuchtman and Seashore (1967, pp. 891-903) defined organizational effectiveness in terms of an organization's capacity to acquire scarce and valued resources from its environment. Helsabeck (1973) also saw organizational effectiveness as a function of resource acquisition and noted that

> The effective organization is one that can successfully gain resources, arrive at collective goals, convert the resources into goal attainment, and maintain membership satisfaction.(p. 9)

The Environment of Decision: Factors of Interests, Politics, and Power

The human group is of such complexity that it is exceedingly hard for researchers to predict, describe, or observe group behavior. As a result, most of the studies reviewed in the literature utilized experimental settings from which generalizations were drawn, while in others, such generalizations were based on the authors' own observations of the human group.

For the purposes of this study and for lack of a better term, the factors of interests, politics, and power were categorized as follows: (a) factors internal to an organization, (b) factors external to an organization. It must be emphasized at this juncture, that the above categorization does not represent a dichotomous view of such factors. The above factors are not mutually exclusive. Rather, they are in constant interplay and interaction.

Generally speaking, these factors usually are not quantifiable and consequently harder to measure. Indeed mere identification; particularly in the case of certain political external factors, may be a noteworthy achievement in itself on the part of a decision maker.

Interests, Politics and Power: Internal Factors

Those involved in the internal life and workings of an organization are not inert to their working conditions, superiors, peers, and subordinates. They usually have different interests, opinions, ambitions, perceptions and feelings. Competition for the attainment of those aspects of organizational life which lead to satisfaction and fulfillment, usually lead to conflict. Conflict may be subtle and quiet in the form of intraorganizational plots and alliances or it may involve confrontation in the form of union activities and industrial strife. Colleges and universities are not exempt from such assumptions for they

> are human organizations whose members do not and cannot share equally in such matters as influence, authority, and power. Entitlement to these valued

> possessions is inevitably a source of dispute. (Dykes, 1968, p. iii)

Organizational life is expected to yield certain benefits and in realizing organizational goals help the members satisfy their expectations from the organization. The fact that the more effective the system, the higher the probability that any member taken at random will be having his values optimized, was discussed in depth by Ostrom, Teibout, and Warren (1961, pp. 831-842).

In higher education the implication is obvious. Students, faculty members, administrators, alumni, and the community have differing goals, values, and expectations with regard to institutions of higher education. A particular institution may satisfy some goals some of the time, and since those involved do not usually share the same goals, conflict may result.

In a decision making situation, what is usually involved is vying for influence by those involved or affected which can be described as

> the relative ability to specify the alternatives considered in resolving a given issue and to control the determination of the alternative that is ultimately selected. (AAHE, 1967, p. 15)

Internal factors: the students. Historically, institutions of higher education dealt with students in a paternalistic manner. The concept of in loco parentis was firmly entrenched and went unchallenged for the longest time. The period from the early colonial colleges to the Civil War was

> a period when constant warfare raged between faculty and students, when college government at best was nothing but a paternal despotism, when the most outrageous pranks and disturbances were provoked by undisciplined and incredibly bold young men. (Brubacher and Rudy, 1968, p. 51)

Part of the reason for this was the strict and petty disciplinary codes in force at the time. Another reason was that students were treated not as young college men but rather as rebellious adolescents. In other words, a lack of a democratic atmosphere in the relationship of students with faculty and administrators prevailed.

Brubacher and Rudy (1968, p. 57) noted that this atmosphere changed somewhat after the Civil War due to changes in the curriculum, changes in disciplinary codes, the move towards co-education, the rise of intercollegiate athletic sports, and last, the fact that many institutions ceased to require police duty of their faculty members. Nevertheless, even with these new developments,

> Ideas about student government were limited, student publications were bothersome but carefully scrutinized, and student social organizations were mostly individualistic in orientation. Student "power" was impossible to imagine under these circumstances. (Millet, 1968, p. 4)

In addition to the above historical background, it must be noted that students in institutions of higher learning have traditionally been in a client-expert relationship with the faculty and administration, and experts usually are not "prepared to believe that their clients can be equipped to collaborate with them as equals (Klein, 1976, p. 119). To explain this further,

a rhetorical question is raised: "What kind of opinion can a lay person give a medical doctor concerning a health question?

In the light of the above, one can start to understand the underlying reasons for student violence in the sixties.

> . . . students of the 1960's turned to violence because they felt shut out of the decisionmaking process and were not involved in matters of institutional governance. (Helsabeck, 1973, p. xi)

In other words, although American higher education has always maintained an interest in student affairs, only recently has

> the student body come to be regarded as a constituent element of the academic community with a role to play in the determination of educational policies and practices. (Millet, 1968, p. 18)

To summarize, the student body traditionally was "looked after" by faculties and administrators as an extension of parental authority without the students having much say in the process. Following the general liberalization of national attitudes and the violence of the 1960's, students became regarded as capable of speaking for themselves, on most campuses in the U. S. A. and became also regarded as a factor to be reckoned with when deciding issues that affect them.

Internal factors: the faculty. From a historical perspective, faculties did not enjoy a large share of the power to shape decisions and usually served at the pleasure of college presidents and governing boards (Brubacher and Rudy, 1968, pp. 29-31). In other words, "faculty members for the most part in these years

(up to WW II) had only modest influence upon the operations of colleges or universities as institutions (Millet, 1968, p. 3).

Since the second world war, American higher education has seen several developments which provide a backdrop to the unionization of faculties and the move towards collective bargaining, which in essence is a form of power sharing. First there was the large numbers of returning soldiers inundating colleges and universities and placing a great stress on their resources, thus the need for building space and more instructors. With this came a large number of younger instructors and massive state and federal aid. That aid did not come with strings unattached. The influence on institutional decision making of state capitols and federal bureaucrats increased. In such a situation,

> Any faculty influence exerted at the level of the individual institution is bound to be diluted when it is transmitted to the higher reaches of the bureaucracy or to the legislature. (AAHE, 1967, p. 11)

Faculties felt they were being sidestepped by administrators at institutional levels, state system levels, and the federal level. Their best interests were not always being considered, in spite of their pivotal and crucial role in higher education. In light of this

> movement of faculties toward collective bargaining can be understood partially as an expression of their lack of confidence in the capability of the traditional decision making processes to serve faculty interests. (Helsabeck, 1973, p. xi)

Collective bargaining or the more genteel euphemism "professional negotiations" may then be seen as an expression of

the expectation that the faculty should enjoy "shared authority" with the administration in the choice of alternatives in the decision making process at a given institution.

> The problem is to define what is meant by shared authority and to give that definition concrete meaning in the every day, continuing operation of a college. (Millet, 1968, p. 5)

To summarize, historically faculties did not wield much clout in the decision making process in American higher education. The major influence was vested in a board of control and the president. Following the second world war, developments in higher education contributed to an increased movement by faculties towards collective bargaining as a means of influencing decision making beyond their traditional and limited role.

Internal factors: superiors and presidents. A very important factor in the internal life of an organization is the superior or the president in charge. For the purposes of this discussion, this is limited to the executive type of presidents as opposed to the figurehead or honorary type. The importance of personal or administrative style was recognized and discussed by Demerath and Stephens (1967, p. 127) and by Morris (1972, p. 195). The decision maker affects the process by his style. Is he intuitive, implicit, and private or is he analytical, explicit and public? Another aspect would be the president's qualities of human relations, types of power, kinds of management skills, decision making methodology, and the way compliance is gained.

The way a president operates may determine the effectiveness of that office:

> To be effective and to communicate as intended, a leader must always adapt his behavior to take into account the expectations, values, and interpersonal skills of those with whom he is interacting. (Likert, 1961, p. 95)

Nevertheless, such concern may not be always possible, for historically

> . . . the presidential point of view was influenced by the known attitudes of important board members, especially board members who enjoyed considerable economic or political power. (Millet, 1968, p. 3)

The success of a president then may depend in part upon the ability to balance such pressures with what he perceives as the needs and interests of other institutional claimants like students and the faculty, particularly where marked differences exist. The importance of this balancing act was underlined by Bennis (1976). He described a situation from his own experience where a new president charged with changing an institution was faced with opposition from entrenched and suspicious faculty members.

> Change oriented administrators are particularly prone to act as though the organization came into being the day they arrived. This is an illusion, an omnipotent fantasy. There are no clean slates in established organizations. A new president can't play Noah and build the world anew with two hand-picked delegates from each academic discipline. Rhetoric about new starts is frightening to those who suspect that the new beginning is the end of their own careers. There can be no change without history, without continuity. (p. 222)

To summarize, a president by virtue of his position sets the tone for an institution and therefore exerts considerable influence on the choice of alternatives in the decision making process at the institution concerned. The presidential job involves balancing the pressures of various claimants and constituents.

Internal factors: subordinates. A fairly well accepted assumption at the time of writing was that people in organizational settings expect that their work yields important satisfaction in addition to monetary returns. "Workforce changes suggest that people expect more challenging jobs and participatory forms of organization" (Herrick, Bartholomew and Brandt, 1976, p. 210). In other words, subordinates expect to be able to exert some influence at their workplace thus constituting a factor to be considered by the decision maker in the choice of alternatives in the decision making process. The importance of this factor was underlined by McDonnell (1974)

> the bounds within which management makes decisions used to reflect concern not only for the actions and potential benefits of the decisions, but also the effects of the decisions on the people who will be asked or required to accept and implement them, (p. 188)

In other words, lack of cooperation or sympathy on the part of those charged with implementation or who are affected by a decision, can have an impact on the quality of such a decision.

Realizing the importance of the role subordinates can play in the success of a decision, Cooper (1961) admonished that

> the leadership must provide an environment within which its people will want to make the best decisions for the enterprise. They must want to feel that their best interests are coincident with those of the organization. (p. 384)

The question of compliance and contentment of subordinates is not as simple as it may seem to be, for there is

> A subtle but important distinction . . . between the sense of rightness or propriety of a decision making arrangement and the desirability of the arrangement (the satisfaction one derives from it). One may be satisfied with an illegitimate decisionmaking structure if he is benefitting personally under that system or if he does not place a high value on legitimacy itself. (Helsabeck, 1973, p. 8)

Subordinate expectations cannot then be met in an unqualified manner. In attempting to meet such expectations, the decision maker attempts to maintain legitimacy of purpose. While preserving legitimacy, the decision maker realizes that subordinate response to supervisory acts depends upon:

1. The perception by the subordinate of the supervisory act or interaction (i.e., how the subordinate sees and interprets the experience)

2. The relationship between these perceptions and the expectations, values, and interpersonal skills of the subordinate. (Likert, 1961, p. 95)

Both of the above variables are influenced to a large degree by the subordinate's background, past experience, and values.

In addition to, and other than the expectations of subordinates, a decision maker must consider another aspect of the subordinates factor and its effects on the choice of alternatives in the decision making process, namely, monitoring. Legally, subordinates

exercise no control over the executive, they follow orders as they come down the chain of command. Yet the executive must be careful not to become the object of subordinates' unfriendly attention, which Cooper (1961) explained as:

> They may monitor your every action for some evidence of omission or commission which might be used against you. (p. 70)

To summarize, subordinates play an important role in affecting the choice of alternatives in the decision making process. The executive must take their expectations into consideration yet maintain legality of purpose. He must also consider their perception of supervisory acts taking into consideration matters like subordinates' background, past experiences, and values.

Interests, Politics and Power: External Factors

Institutions of higher education as organizations do not exist in a vacuum. External environmental factors affect and impinge upon the choice of alternatives in the decision making process. Students of the politics of higher education recognize that

> , . . most universities operate on the apparent assumption that persons inside the organization control its destiny. While no one can deny the influence of students, faculty and administration on the organization's welfare and mission, it is equally fallacious to ignore the impact of persons outside the organization. (Cyphert & Gant, 1971, p. 272)

The impact of persons outside the organization has historically been substantial which is illustrated by the fact that

> The truly major changes in university life have been initiated from the outside, by such forces as Napoleon in France,

> ministers of education in Germany, royal commissions and the University Grants Committee in Great Britain, the Communist Party in Russia, the emperor at the time of the Restoration in Japan, the lay university governing boards and the Federal Congress in the United States. (Kerr, 1968, p. 307)

To the above, Mao Tse Tung's youthful red guards and their impact on higher education in China, may be added. In spite of the historical evidence, faculty and administration may insist that education must be left in the hands of the experts (faculty and administration) who are best trained to handle the destiny of their institutions. Such an opinion is shared and illustrated by

> Health professionals (who) feel that matters of the public health should be left in the hands of the experts most qualified to assess the facts and to take the necessary action. They often decry the involvement of the public in decisions about such matters as fluoridation through referenda or other means. (Klein, 1976, p. 119)

The above argument falters, however, because it does not take into account the difference in delivery systems between public health and public education. The first system is controlled by the experts while the latter is not and their vulnerability to outside pressures vary significantly.

> Vulnerability is highly characteristic of public and secondary educational systems, and social service systems. These systems incorporate the ideologically valued form of client and community control. (Bennis, 1976, p. 88)

After such assumption of client and community control (as opposed to expert control) is accepted, it must be noted that

"community" means different things to different people. Many Americans carry an ideal image of local community in their minds without regard to the contemporary facts of urban, suburban, and rural settings and the heterogeneous nature of a nation of immigrants. This ideal image is usually based on the view of a homogeneous neighborhood or town where people know each other, cherish the same ideals, share the same values, and speak the same cultural language.

This view of the local community is far from being accurate, for the local community is a conglomeration of subcommunities.

> These include religious, educational, recreational, welfare, health (physical and mental), political, economic, mass media, public safety, and cultural subcommunities. Each of these subcommunities is more or less separately organized. And indeed some subcommunities are divided by many separate internal organizations, for example, the religious subcommunity. (Benne, 1976, p. 78)

Members of one or more of these subcommunities are invariably affected by public plans and policies including those in higher education. Such plans and policies as they get translated into programs and projects must take into account such factors as values, ideals, interests, opinions, and feelings of these various subcommunities. They must also take into account the realities of the differences between these various subcommunities. The importance of this taking into account so to speak, becomes most evident when the question of financing public higher education is involved. It is a recognized fact that

> . . . the financing of higher education depends upon the philanthropy of persons (including corporations and private foundations) and the grants of governments. The availability of both depends upon individual and collective reactions of power persons in society outside the walls of a college. (Millet, 1968, p. 15)

In other words, the subcommunities that make up the community at large, with all their differences, can and often do exert pressures and engage in political power play when public policies that affect them are being formulated. This makes it necessary for any such policies to be within their tolerance limits.

A decision maker under such circumstances may have to be involved in a certain amount of lobbying and informal contact activities. A decision maker should also

> . . . take a systems view of his political resources, just as he would view the cost of a project within the context of a total systems cost. (Benton, 1973, p. 123)

In addition to availing himself of the subtleties and nuances of political power, with its limitations and possibilities, a decision maker operates within the framework of government regulation. The history of federal government involvement in American higher education is beyond the scope of this paper. It suffices, while considering any such history, to note that

> . . . once the federal government became a large-scale supplier of financial resources, it was of course possible to utilize these funds to achieve various objectives deemed desirable by federal legislators and federal administrators. (Millet, 1968, p. 27)

In the quest of federal funds, institutions of higher education frequently find that they must modify and adjust their behavior to meet qualification standards. Areas such as research, student financial aid, physical plant construction,and improvement of so-called "developing" institutions are all areas that are increasingly influenced by the availability of federal monies. Federally desirable standards in the areas of women, racial minority, and handicapped access without discrimination, and minimum wages are two examples where federal money is being used to achieve socially desirable objectives. Although institutions may refuse federal aid, the question on hand is usually that of an exchange between institutional autonomy and the availability of resources.

Nevertheless, a number of aspects of higher education, as pointed out by Millet (1968, p. 31) are usually left within the sphere of major influence of individual institutions. These include degree requirements, curriculum development, methods of instruction, student conduct, internal organizational structure, solicitation of funds from private donors, and of course the management of available resources and personnel.

In addition to the federal government, public institutions of higher education usually operate within the framework of a state system of higher education. This means another set of legislators and administrators to operate under. A major difference though between federal and state regulation is that there is some choice and leeway in dealing with the former (i.e.,

by electing not to participate in federally funded programs), while there is an absence of choice when dealing with the latter. States usually enact state master plans for their systems of higher education. Such plans usually cover areas like admission policies and procedures, location of new campuses, enrollment sizes in a particular program or on a certain campus, articulation of student transfer, and the assignment of missions and roles to specific institutions.

In addition to federal and state government factors, a decision maker's choice of alternatives in the decision making process is subject to the effects of U. S. Supreme Court rulings, past, present, and future. Starting with the 1819 Dartmouth College case, judicial decisions have played an important role in shaping the form and function of higher education. A more recent and dramatic example is:

> the Supreme Court decision declaring laws and policies supporting school segregation illegal. And the federal courts . . . control in seeking to implement and enforce this decision. (Chin and Benne, 1976, p. 42)

To summarize, the external environment of decision is made up of several factors including subtle, invisible, or informal power pressures and the formal pressures of federal and state governments and the judiciary. The effective decision maker seeks to identify and work with the first and does not allow the second to stifle creative management or become an excuse for inefficiency and failure.

The Environment of Decision: Further Considerations

In considering the environment of decision with its internal and external dimensions, it must be emphasized that the factors involved are not independent, unrelated and clearcut. This is not the case, for they are more frequently than not, interdependent, interrelated and hard to define or measure. Not only that, but the factors of the environment vary in their importance at different stages of an undertaking. A much quoted example here was given by Barnard (1938, p. 204). In a given situation a determination was made that soil on a certain land needed potash. Potash may then be thought of as the most relevant environmental factor that affects the choice of alternatives in the decision making process, at that time. Barnard explained how instead of potash, this factor changes to obtaining potash, which may change to obtaining necessary funds to buy potash, then finding somebody to go fetch the potash, then employing men and machines to spread the potash and so on. He concluded that determining the most relevant environmental factor merely changes the situation to the point where another becomes relevant.

Another simpler and more obvious example is the operation of a car. In the process of operation, the most important factors may relate to the physical environment and progressively change from the ignition key to the electric spark plug, to gasoline and its cost, to the condition of the roads, to visibility, and so on.

In other words, the environmental factors that affect the choice of alternatives in the decision making process may be seen as in a state of constant flux varying in importance with the decision on hand. Barnard (1938) summed the importance of striking a balance between the environmental factors as follows:

> The survival of an organization depends upon the maintenance of an equilibrium of complex character in a continuously fluctuating environment of physical, biological, and social materials, elements, and forces. (p. 6)

The Environment of Decision: Summary

Based on the survey of literature, the environment of decision could be viewed as made up of two types of factors. The first type is that of factors of cost, the second is that of factors of interests, politics, and power.

Under factors of cost, four factors were included, namely: information, technology, time, and financial resources. Factors of interests, politics, and power were discussed in terms of factors external or internal to an organization.

CHAPTER III

DESIGN OF THE STUDY

Introduction

This chapter presents the design of the study which includes the procedures used, the study's participants, and the Florida public community colleges represented.

Procedures

The purpose of this study was to identify what a selected group of top level administrators perceived as environmental factors which affect the choice of alternatives in the decision making process in Florida's public community colleges. The source of data for the study was a modified Delphi procedure which employed iterative, sequential questionnaires with controlled feedback designed to, first, elicit statements as to the nature of environmental factors, and then to seek consensus, on those identified environmental factors, among the study's participants.

The procedures used in this study and which led to the collection of the data involved the following steps:

First, the scholarly literature in management sciences and organizational theory was surveyed with the purpose of identifying, in the abstract, what writers in the field consider as

environmental factors which affect the choice of alternatives in organizational decision making. A complete and detailed discussion of these environmental factors is contained in Chapter II. Those environmental factors that were identified in the literature were used for illustration and clarification in the initial letter that was sent to the participants.

Next, the presidents of the twenty-eight public community colleges in Florida were contacted via a letter from the Institute of Higher Education, a component of the College of Education at the University of Florida. Each president was requested to designate top level administrators in the second echelon of responsibility after him, who may be contacted as potential Delphi panel members at his institution. Twenty-four community college presidents responded with nominations of 112 potential panel members.

The step that followed involved direct contact, via letter, with the 112 potential Delphi panel members. Each member was sent the following: (a) an explanation of the study, including a list of those environmental factors that were identified in the literature survey; (b) an explanation of the Delphi technique as modified and used in this study; (c) the instrument, a form (Questionnaire 1) on which participants were asked to list what they thought were environmental factors that affect the choice of alternatives in those decisions relating to the management and administration of their community colleges.

Responses were received from 72 participants representing twenty-two community colleges and a 64.2% rate of return. Two

out of the 72 respondents requested that their names be removed from the list of Delphi panel experts, thus reducing the list from 112 names, that were supplied by the college presidents earlier, to 110 names.

In order to eliminate duplication and repetition, responses were reviewed and edited. A total of 23 statements of environmental factors were identified and extracted from those submitted.

In a departure from the usual Delphi procedure, the second questionnaire was then sent to 110 Delphi panel members. It was felt that although responses have been received from only 70 of the 110 members, it was appropriate to send the questionnaire to all 110 members in view of the fact that 22 out of 24 colleges were represented within the 70 responses. It was also felt that the 23 statements of environmental factors generated by the first questionnaire, when compared to the findings in the survey of literature, were comprehensive to the extent that they covered any environmental factors which most likely would have been submitted by the remaining 40 panel members who did not respond to the first questionnaire.

The second questionnaire consisted of 23 statements of environmental factors. Delphi panel members were asked to indicate their assessment of what they believed was the relative importance (from 1--"minimum importance" to 5--"maximum importance") for each of the identified environmental factors. Panel members were asked to identify themselves by name on this second questionnaire.

Of the 83 panel members from whom responses were received, 13 failed to comply or elected not to do so. Seventy respondents on the other hand, entered their names and addresses in the space provided. The responses received from 83 panel members represent twenty-four community colleges and a 75.4% rate of return.

From the responses to the second questionnaire, consensus rankings were determined by calculating a median response for each of the identified environmental factors. It was decided that in view of the ordinal scale used in the questionnaire, the median would be the most appropriate measure of central tendency or consensus. A mode, it was thought, could be misleading in instances where assigned rankings were distributed relatively evenly along the scale, and a mean might have unduly reflected extreme scores where assigned rankings showed a skewed distribution (Fox, 1969, pp. 187-189).

In calculating the median, however, it was necessary to set up intervals and to assume the distribution of cases within intervals as being even. The median was calculated to three decimal places.

On the last questionnaire (Questionnaire III), the consensus ranking (median) was put into parenthesis. In addition, the individual rankings for each factor from the second questionnaire were marked by hand, in red, on the third questionnaire. This was done in order to offer each respondent the opportunity to compare his or her own individual ranking (marked in red) with the median or consensus ranking (in between parenthesis) for each item.

The third questionnaire was sent to 70 panel members who identified themselves on the second questionnaire as they were requested. Thus, thirteen panel members, out of eighty-three, who responded to the second questionnaire, but failed or elected not to identify themselves, had to be omitted.

On this instrument, panel members were asked to compare their own rankings (marked in red) with the consensus rankings (within parentheses) and then indicate their response in the following manner: (a) cross out the ranking which corresponds to their assessment of the relative importance of that factor in light of comparison between their own previous ranking and the consensus ranking; (b) to briefly state a reason for choosing a ranking that is different from the consensus ranking.

Responses were received from 59 panel members, representing 24 community colleges and 84.2% rate of return.

College Representation

Delphi panel members in this study represented the following public community colleges in Florida:

Brevard Community College

Broward Community College

Central Florida Community College

Chipola Junior College

Daytona Beach Community College

Edison Community College

Florida Junior College at Jacksonville

Gulf Coast Community College

Hillsborough Community College

Lake City Community College

Lake-Sumter Community College

Manatee Junior College

Miami-Dade Community College

North Florida Junior College

Okaloosa-Walton Junior College

Palm Beach Junior College

Pasco-Hernando Community College

Pensacola Junior College

Polk Community College

Santa Fe Community College

Seminole Community College

St. Petersburg Junior College

Tallahassee Community College

Valencia Community College

Table 3.1--Community College Representation in Delphi Procedure

	Initial letter[a]	Phase		
		I n	II n	III n
Questionnaires	28	24	24	24
Responses	24	22	24	24

[a]Initial letter sent to presidents of the 28 public community colleges in Florida requesting them to identify potential Delphi panel members.

Table 3.2--Summary of Delphi Panel Member Participation

	Phase		
	I n	II n	III n
Questionnaires	112[a]	110	70
Responses	72[b]	83[c]	59

[a]112 potential panel members nominated by college presidents

[b]2 out of 72 respondents requested that their names be removed from the list of panel members, thus effectively reducing it from 112 to 110

[c]13 out of 83 respondents failed or elected not to identify themselves on the second questionnaire as requested. This reduced the number of panel members from 83 to 70, to whom the third questionnaire was sent.

Summary

The procedures used to collect the data for this study involved a three-phase modified Delphi technique. The presidents of Florida's public community colleges, upon request, submitted a list of top level administrators at their respective colleges. Those administrators on this list were asked to serve as Delphi panel members. Illustration materials used in the first phase of the study were derived from a survey of the scholarly literature. In the first phase, which involved an open-ended questionnaire, statements about environmental factors that affect the choice of alternatives in the decision making process were generated. The second and third stages were used to generate comments, and move towards consensus, as to rated value and rank order, on the generated statements.

CHAPTER IV

DATA PRESENTATION AND DISCUSSION

Introduction

The environment within which higher education operates in the United States has increased in complexity and has changed significantly since the early church dominated efforts of colonial times. This change reflects shifts in political forces and social and moral values in society at large. Such changes are legitimate in a democratic society and in keeping with its evolutionary nature. These same political forces and social values form the groundwork of environmental factors which affect the choice of alternatives in the decision making process in higher education. The Delphi technique, used to generate the data in this chapter, was selected because of its potential for gathering empirical data yet at the same time recording the observations, concerns and thoughtful consideration of individuals knowledgeable about the environment of decision. An additional factor in the choice of the Delphi technique was its potential for facilitating an exchange of ideas among a panel of experts who made up the reacting representation.

The method of identifying these experts and the procedures of their interaction leading to the generation of data were described in Chapter III. This chapter presents the tabulated and synthesized data generated through the use of the Delphi

technique regarding the environmental factors which affect the choice of alternatives in the decision making process and their order of importance.

Environmental Factors Which Affect the Choice of Alternatives in the Decision Making Process in Florida's Public Community Colleges

A list of 23 environmental factors which affect the choice of alternatives in the decision making process in Florida's public community colleges was generated through the first questionnaire (Appendix B) in this study. This list includes such factors as: Federal legislation and regulation, State legislation and regulation, rules and regulations of accrediting bodies, faculty needs and interests and the manner in which they are expressed, student needs and interests and the manner in which they are expressed, the local community, the college board of trustees, political considerations, changes in technology, energy, the college president, the peers of the decision maker, the subordinates of the decision maker, college history and traditional practices, the stated mission, philosophy and goals of the college, the stated policies and set procedures of the college, human resources, financial resources, physical resources, prestige, information and time.

These 23 environmental factors are subdivided into 58 items. A listing of all items, rank ordered, importance rated, with calculated medians and divergent or appropriate comments appears in Appendix F. These data may be summarized as follows:

2 items rated Maximum Importance (items 8 and 2-g)

33 items ranked High Importance
(items 19, 12, 2-a, 17, 16, 18, 22, 20, 1-h, 1-b, 2-e, 2-d, 1-a, 23, 7-a, 7-e, 10, 13, 2-f, 2-h, 2-j, 11, 3-a, 1-d, 1-c, 9-c, 14, 4-a, 9-c, 6 2-b, 1-j, and 1-e)

17 items rated Medium Importance
(items 5-b, 1-i, 2-c, 15, 7-c, 7-b, 7-d, 7-g, 2-i, 21, 1-g, 3-b, 9-a, 7-f, 9-e, 4-c, and 9-b)

5 items rated Low Importance
(items 1-f, 9-f, 5-a, 4-b, and 3-c)

and

1 item rated Minimum Importance (item 5-c).

The item numbers are those appearing on the third questionnaire (Appendix E).

A list ofthe 58 items that make up the 23 environmental factors, rank ordered, importance rated, with calculated medians is presented in Table 4.1.

In calculating the median (and mean), intervals were set up as follows:

Key	Rating	Interval
Maximum Importance	5	4.500-5.000
High Importance	4	3.500-4.499
Medium Importance	3	2.500-3.499
Low Importance	2	1.500-2.499
Minimum Importance	1	0.500-1.499

Table 4.1--Environmental Factors Affecting Decision Making Listed by Order of Importance

Rank	Environmental Factor	Rated Importance	Median
1	The college board of trustees (8)	Maximum	4.930
2	The Florida State Legislature (2-g)	Maximum	4.896
3	Financial resources (19)	High	4.448
4	The college president (12)	High	4.419
5	Division of community colleges (2-a)	High	4.271
6	The stated policies and set procedures of the college (17)	High	4.250
7	The stated mission, philosophy, and goals of the college (16)	High	4.217
8	Human resources (18)	High	4.163
9	Information (22)	High	4.152
10	Physical resources (20)	High	4.122
11	Financial aid programs (1-h)	High	4.054
12	Equal Opportunity/Affirmative Action legislation (1-b)	High	4.023
13	State Department of Education (2-e)	High	3.989
14	State Board of Education (2-d)	High	3.987
15	U. S. Supreme Court rulings (1-a)	High	3.986
16	Time (23)	High	3.976
17	The racial and ethnic make-up of the service area population (7-a)	High	3.965
18	Manpower needs of local business and industry (7-e)	High	3.963
19	Changes in technology (10)	High	3.955
20	The peers of the decision maker (13)	High	3.950
21	Commissioner of Education (2-f)	High	3.947

Table 4.1--Continued

Rank	Environmental Factor	Rated Importance	Median
22	Rulings of state courts (2-h)	High	3.341
23	Administrative Procedures Act (2-j)	High	3.333
24	Energy (11)	High	3.921
25	Accrediting agencies (3-a)	High	3.913
26	Veterans Administration (1-d)	High	3.896
27	Health, Education & Welfare Department (1-c)	High	3.895
28	Local advisory groups (9-c)	High	3.868
29	The subordinates of the decision maker (14)	High	3.859
30	Faculty Senate (4-a)	High	3.848
31	The local legislative delegation (9-c)	High	3.846
32	Career service personnel (6)	High	3.843
33	Division of Vocational-Technical Education (2-b)	High	3.843
34	Office of Civil Liberties (1-j)	High	3.841
35	U. S. Office of Education (1-e)	High	3.814
36	Student government (5-b)	Medium	3.214
37	Equal Employment Opportunity Commission (1-i)	Medium	3.203
38	Interpretation of law by Attorney General (2-c)	Medium	3.200
39	College history and traditional practices (15)	Medium	3.194
40	Rural or urban setting (7-c)	Medium	3.194
41	The age make-up (7-b)	Medium	3.139
42	Liberal or conservative orientation (7-d)	Medium	3.125
43	The local public school system (7-g)	Medium	3.115

Table 4.1--Continued

Rank	Environmental Factor	Rated Importance	Median
44	Public Employees' Relations Committee (2-i)	Medium	3.113
45	Prestige (21)	Medium	3.031
46	Congressional appropriations (1-g)	Medium	3.031
47	Accrediting Professional Associations (3-b)	Medium	3.026
48	Special interest groups or individuals on or off campus (9-a)	Medium	2.959
49	Monitoring by local press, radio and T.V. (7-f)	Medium	2.900
50	quid pro quo factor (9-d)	Medium	2.838
51	A collective bargaining organizational drive (4-c)	Medium	2.826
52	Local civic organizationsand service clubs (9-b)	Medium	2.742
53	Social Security Administration (1-f)	Low	2.141
54	Alumni (9-f)	Low	2.108
55	Parental pressure (5-a)	Low	2.074
56	A faculty union (4-b)	Low	2.048
57	Union apprenticeship programs (3-c)	Low	1.847
58	Student rioting (5-c)	Minimum	1.265

Note: Figures in parentheses represent item numbers as appearing on the third questionnaire.

For each environmental factor, the median was calculated in the following manner:

1. The total number of cases (importance rating) for the environmental factor was determined.

2. The median was designated as the point on the scale (1-5) above and below which 50% of the total number of cases fell.
3. The interval within which the median fell was determined and designated as the importance consensus.
4. The median was calculated by counting the number of cases in the interval which, when added to the number of cases in the preceding interval(s), equal one-half of all the cases for that environmental factor, and dividing that number by the number of cases in the interval in which the median fell; the resulting number was then added to the lower real limit of the interval to arrive at the median.

To calculate the mean for each environmental factor, the number of responses within each interval was multiplied by the importance rating for that interval (1-5), summed, and divided by the total number of responses for that environmental factor. For the purposes of this study, the mean was defined as the weighted average of responses. The mode was determined through visual scanning of tables showing a summary of responses. The interval containing the largest number of responses for that environmental factor was selected as the mode.

Comparison of the Results of the Second and Third Questionnaires

The use of the modified Delphi technique in this study aimed at achieving a greater degree of agreement, or consensus, among the study's participants as to the importance of the 23

identified environmental factors which affect the choice of alternatives in the decision making process. Table 4.2 shows that, between the second and third questionnaires, there is a convergence of the median about the mode in 55 items of the 58 that make up the 23 statements of environmental factors (94.8%), and a convergence of the mean about the mode in 45 items (77.5%), indicating a closer clustering of responses or increased agreement among respondents. Another indication of agreement or consensus is that the standard deviation on the third questionnaire, as compared to the second, is smaller in all cases except one, indicating closer clustering of responses on the third questionnaire. It may also be noted that for all items the importance rating did not change between the second and third questionnaires, also indicating that changes between the second and third questionnaires were in the direction of the consensus position.

A coefficient of concordance (W) was also computed in order to assess accurately the degree of agreement or association between the assigned importance rankings between the second and third questionnaires. Data for the computation of the coefficient of concordance are presented in Appendix G. The average agreement between the ranks is expressed in this statistic on a scale from 0.00 to 1.00. If the coefficient of concordance was computed and found to be not significantly different from zero, this would indicate a lack of association between the ranks, meaning a lack of consensus about the ranks. On the other hand, if the coefficient of concordance was computed and found to be significantly different

Table 4.2--Comparison of Results of Second and Third Questionnaires

Factor No.	Second Questionnaire					Third Questionnaire				
	Median	Mean	Mode	Standard Deviation	Importance Consensus	Median	Mean	Mode	Standard Deviation	Importance Consensus
1-a	3.868	3.705	4	0.982	4	3.986	4.040	4	0.638	4
b	4.063	4.077	4	0.619	4	4.023	4.036	4	0.466	4
c	3.738	3.679	4	0.693	4	3.895	3.839	4	0.596	4
d	3.988	3.809	4	0.735	4	3.896	3.911	4	0.769	4
e	3.500	3.434	4	0.838	4	3.814	3.679	4	0.765	4
f	2.435	2.577	2	1.051	2	2.141	2.339	2	0.837	2
g	3.304	3.228	4	1.025	3	3.031	3.089	3	0.769	3
h	4.039	3.987	4	0.840	4	4.054	4.053	4	0.639	4
i	3.250	3.282	3	0.952	3	3.203	3.298	3	0.755	3
j	3.557	3.526	4	0.768	4	3.841	3.750	4	0.513	4
2-a	4.397	4.383	4	0.629	4	4.271	4.328	4	0.543	4
b	3.743	3.654	4	0.850	4	3.843	3.776	4	0.677	4
c	3.433	3.487	3	0.922	3	3.200	3.345	3	0.890	3
d	3.924	3.845	4	0.913	4	3.987	3.965	4	0.626	4
e	4.000	3.987	4	0.689	4	3.989	3.983	4	0.477	4

Table 4.2--Continued

Factor No.	Second Questionnaire					Third Questionnaire				
	Median	Mean	Mode	Standard Deviation	Importance Consensus	Median	Mean	Mode	Standard Deviation	Importance Consensus
f	3.941	3.863	4	0.910	4	3.947	3.897	4	0.667	4
g	4.725	4.595	5	0.610	5	4.896	4.828	5	0.381	5
h	3.628	3.772	4	0.905	4	3.941	3.879	4	0.751	4
i	3.192	3.163	3	1.174	3	3.113	3.155	3	0.099	3
j	3.652	3.671	3	1.009	4	3.933	3.879	4	0.796	4
3-a	3.691	3.684	4	0.809	4	3.913	3.881	4	0.560	4
b	2.657	2.633	3	0.835	3	3.026	3.018	3	0.612	3
c	1.757	1.808	2	0.774	2	1.847	1.825	2	0.630	2
4-a	3.786	3.641	4	1.019	4	3.848	3.702	4	0.886	4
b	2.176	2.392	1	1.325	2	2.048	2.333	2	1.272	2
c	2.800	2.825	3	1.394	3	2.826	2.719	3	1.221	3
5-a	2.414	2.544	2	1.060	2	2.074	2.246	2	0.950	2
b	3.375	3.300	4	1.107	3	3.214	3.259	3	0.965	3
c	1.439	2.052	1	1.385	1	1.265	1.769	1	1.277	1
6	3.663	3.582	4	0.761	4	3.843	3.786	4	0.624	4

Table 4.2--Continued

Factor No.	Second Questionnaire					Third Questionnaire				
	Median	Mean	Mode	Standard Deviation	Importance Consensus	Median	Mean	Mode	Standard Deviation	Importance Consensus
7-a	3.761	3.704	4	0.697	4	3.965	3.931	4	0.558	4
b	3.145	3.113	3	0.994	3	3.139	3.224	3	0.773	3
c	3.276	3.259	3	0.959	3	3.194	3.276	3	0.720	3
d	3.196	3.136	4	0.932	3	3.125	3.138	3	0.736	3
e	3.888	3.815	4	0.838	4	3.963	3.914	4	0.629	4
f	2.766	2.790	3	0.932	3	2.900	2.879	3	0.774	3
g	3.143	3.136	3	0.905	3	3.115	3.172	3	0.679	3
8	4.774	4.662	5	0.528	5	4.930	4.860	5	0.398	5
9-a	3.012	2.951	3	0.907	3	2.959	2.914	3	0.756	3
b	2.515	2.605	2	0.769	3	2.742	2.724	3	0.720	3
c	3.629	3.543	4	0.881	4	3.868	3.741	4	0.739	4
d	2.819	2.737	3	0.719	3	2.838	2.753	3	0.714	3
e	3.708	3.642	4	0.870	4	3.846	3.678	4	0.797	4
f	2.333	2.383	2	0.902	2	2.108	2.211	2	0.750	2
10	3.891	3.821	4	0.734	4	3.955	3.914	4	0.539	4

Table 4.2--Continued

Factor No.	Second Questionnaire					Third Questionnaire				
	Median	Mean	Mode	Standard Deviation	Importance Consensus	Median	Mean	Mode	Standard Deviation	Importance Consensus
11	3.848	3.818	4	0.839	4	3.921	3.897	4	0.583	4
12	4.469	4.346	5	0.787	4	4.419	4.441	4	0.534	4
13	3.662	3.571	4	0.909	4	3.950	3.897	4	0.640	4
14	3.622	3.538	4	0.697	4	3.859	3.810	4	0.545	4
15	3.339	3.333	3	0.963	3	3.194	3.310	3	0.777	3
16	4.290	4.185	5	0.838	4	4.217	4.228	4	0.655	4
17	4.431	4.358	5	0.713	4	4.250	4.298	4	0.566	4
18	4.244	4.272	4	0.613	4	4.163	4.228	4	0.501	4
19	4.706	4.605	5	0.540	5	4.448	4.456	4	0.537	4
20	4.145	4.123	4	0.748	4	4.122	4.175	4	0.504	4
21	3.125	3.086	3	1.015	3	3.031	3.054	3	0.840	3
22	4.203	4.111	4	0.894	4	4.152	4.175	4	0.630	4
23	3.842	3.788	4	0.837	4	3.976	3.964	4	0.503	4

from zero, this would indicate a high degree of association between ranks meaning a high degree of consensus about the ranks. The coefficient of concordance is defined by:

$$W = \frac{12S}{K^2 (n^3-n)}$$

where S is the sum of the deviations squared of the totals of the n ranks from their mean, and where K is the number of sets of ranks. In this study, there were two sets of ranks (k=2) and 58 ranks (n=58). Computation of the coefficient of concordance was based on a comparison of the assigned importance rankings for the second and third questionnaires; importance rankings were determined by the descending order of median rating responses.

The computed W = .98 indicated a high degree of association between the two sets of ranks. To determine if this relationship is statistically significant, the F ratio was calculated using the following formula:

$$F = \frac{(K-1)W}{1-W}$$

The relationship was found to be statistically significant at the .01 level.

CHAPTER V

SUMMARY, FINDINGS, AND CONCLUSIONS

Summary

This study was undertaken with the purpose of identifying those environmental factors which affect the choice of alternatives in the decision making process in community colleges. In the course of the study, the scholarly literature was surveyed in order to examine the various scholarly outlooks at the abstract elements that constitute the environment of decision.

A modified Delphi technique was utilized to identify and determine the consensus importance ratings for a set of environmental factors. These factors were identified by a Delphi panel made up of 110 top-level administrators in Florida's public community colleges. They generated a list of twenty-three factors (made up of 58 items). Through the use of iterative, sequential questionnaires with controlled feedback, these environmental factors were rated as to level of importance on a 1-5 scale.

The data thus generated were tabulated and synthesized. Medians, means, modes, standard deviations and descending rank order of importance were then derived.

Findings

This study was designed to answer the following two questions:

1. What are the environmental factors which affect the choice of alternatives in the decision making process in Florida's community colleges?

2. What is the order of importance of these factors?

Listed below are the environmental factors which affect the choice of alternatives in the decision making process as perceived, identified, and importance ranked by a Delphi panel made up of top-level administrators in Florida's community colleges. This following list provides the answer to the two research questions of this study:

1 The college board of trustees
2 The Florida State Legislature
3 Financial resources
4 The college president
5 Division of Community Colleges
6 The stated policies and set procedures of the college
7 The stated mission, philosophy, and goals of the college
8 Human resources
9 Information
10 Physical resources
11 Financial aid programs, i.e., BOEG
12 Equal Opportunity/Affirmative Action legislation
13 State Department of Education

14 State Board of Education

15 U. S. Supreme Court rulings

16 Time

17 The racial and ethnic make-up of the service area population

18 Manpower needs of local business and industry

19 Changes in technology

20 The peers of the decision maker

21 Commissioner of Education

22 Rulings of State courts

23 Administrative Procedures Act

24 Energy

25 Accrediting agencies

26 Veterans Administration

27 Health, Education and Welfare Department

28 Local advisory groups

29 The subordinates of the decision maker

30 Faculty Senate

31 The local legislative delegation

32 Career service personnel

33 Division of Vocational-Technical Education

34 Office of Civil Liberties

35 U. S. Office of Education

36 Student government

37 Equal Employment Opportunity Commission

38 Interpretation of law by Attorney General

39 College history and traditional practices
40 Rural or urban setting
41 The age make-up
42 Liberal or conservative orientation
43 The local public school system
44 Public Employee's Relations Committee
45 Prestige
46 Congressional appropriations
47 Accrediting professional associations
48 Special interest groups or individuals on or off campus
49 Monitoring by local press, radio & T.V.
50 quid pro quo factor
51 A collective bargaining organizational drive
52 Local civic organizations and service clubs
53 Social Security Administration
54 Alumni
55 Parental pressure
56 A faculty union
57 Union apprenticeship programs
58 Student rioting.

Conclusions

From the findings of this study it may be concluded that top-level administrators in Florida's public community colleges view factors eminating from control or governing agencies and which affect decision making as the most important factors affect-

ing their choice of alternatives in those decisions relating to the management and administration of their colleges during the 1976-77 academic year. Evidence to the above, the ten factors that top the list (out of 58), are state and institutional factors in their entirety. The federal factor, the factors of political considerations and local community, the clientele whom the colleges serve (i.e., the students), and those that operate the major functions of the colleges (i.e., the faculty) were not rated highly enough to rank in importance among the top ten factors. From this, and from the comments made on the second and third questionnaires, it may be inferred that as a group, the top-level administrators making up the Delphi panel share a traditional bureaucratic view of the environment of decision. This is a view where the most important factors are not the wishes of the clientele (i.e., the students) nor of the operators of the enterprise (i.e., the faculty) nor of informal power structures at the local community or state levels. It is a view that accords the highest importance to formal organizational structures and to the formal and legal setting of the college.

Indeed, the only two items that were rated of maximum importance and that rank at the top of the list are the college board of trustees and the Florida State legislature. These were followed by the college president, the Division of Community Colleges, the stated policies and set procedures of the college and the stated mission, philosophy and goals of the college, which supports the above conclusions. Political considerations and local community

factors such as special interest groups and local civic organizations and service clubs and local community factors were rated of medium importance and ranked 48 and 52 respectively. Monitoring by local press, radio and T.V. did not rate any higher with medium rating and a rank of 49.

From the above it may be concluded that, either Florida has a unique power structure where influence resides in formal organizations which is contrary to the thrust of the literature on the subject, or that the top level community college administrators who made up the Delphi panel for this study were not initiated in the ways of informal power structures and influentials that the literature indicate as highly important in affecting the choice of alternatives in the decision making process.

Another explanation of these data may be the likelihood that respondents rated what they perceived as "should be" important as opposed to what actually "is" important.

Further conclusions may be drawn as to the role of the Federal government in affecting the choice of alternatives in the decision making process in Florida's public community colleges. Federal factors generally received high importance rating, thus underlining the powers of the purse and the law that the Federal government controls. It is interesting to notice that several comments were made by respondents to the effect that since their colleges have not sought federal monies, federal influence at their colleges rated less. As may have been expected, Equal Opportunity/Affirmative Action legislation rated high importance and

ranked 12, with Supreme Court rulings not far behind at 15 and also rated of high importance.

It may also be concluded that judging by the comments, the comparatively large standard deviations and low medians, means and rank, a wide spectrum of opinion is evident in the case of faculty and student needs and interests. A clear preference was shown for traditional forms of representation. The writer was not able to tell whether this preference was based on "what is" or "what should be." The faculty senate was rated of high importance and ranked 30. Student government was rated of medium importance and ranked 36. In contrast to this, other forms of expressing faculty and student needs and interests such as student rioting, parental pressure, a faculty union, or a collective bargaining organizational drive, received low or minimum rating and fell in the bottom ranks of 58, 55, 56, and 51 respectively.

Another conclusion, and not surprisingly so, was that the availability of resources is an important environmental factor which affects decision making. Financial resources, human resources, information, physical resources, Federal financial aid programs, and time, ranked 3, 8, 9. 10, 11, and 16 respectively. They all rated high importance.

It may also be concluded that environmental factors tend to vary with locale. A case in point is the rated importance and comments made about the role of manpower needs of local business and industry in affecting the choice of alternatives in the decision making process. Respondents from urban larger community

colleges generally tended to give this factor a high or maximum importance rating. Respondents from rural small community colleges gave this factor a low or minimum importance rating commenting that in their areas there were only service jobs available and no industry or major businesses.

Looking at the data generated in this study as a whole, and taking into consideration the rated importance and rank of the identified environmental factors which affect the choice of alternatives in the decision making process in Florida's public community colleges, there emerges a picture of the environmental factors in relation to one another. In this picture the governing bodies were ranked as most important, which may not be surprising, but this makes these governing bodies the master and not the servant of community needs.

Recommendations For Further Study

The study of environmental factors which affect the choice of alternatives in the decision making process must be of a continuing nature due to the ever changing and developing social values and political forces that underlie these factors. Moreover, the body of knowledge about decision making in higher education, to which this study hopefully contributes, needs to be added to, expanded, and refined. Furthermore, the validity of this study needs to be tested by replication and by comparing it with studies where data were collected from another population also believed to be knowledgeable about decision making.

In addition, the data collected with regard to the environmental factors that affect the choice of alternatives in the decision making process in Florida's public community colleges are likely to change, necessitating updating in the form of further studies.

APPENDIX A

INITIAL LETTER TO COMMUNITY COLLEGE PRESIDENTS TO IDENTIFY DELPHI PANEL MEMBERS

The Institute of Higher Education will be conducting a study aimed at identifying those environmental factors which affect the choice of alternatives in those decisions relating to the management and administration of Florida's community colleges. The principal investigator in this study will be Mr. Elias G. Nemr of our Institute staff. I feel certain that the results of this study will be of interest and value to you.

The procedure to be used will be a modified Delphi technique, using as the Delphi panel top level administrators in the second echelon of responsibility after the presidents of Florida's community colleges. Typically such individuals are assigned areas of responsibility such as: academic affairs, admissions and records, administrative services, student personnel services, and physical plant.

Members of the Delphi panel will be asked to react to three questionnaires as the environmental factors are identified. This will mean three exchanges of correspondence with each participant. However, this will be all that will be requested.

I am enclosing with this letter a form on which I would appreciate your listing those second echelon top level administrators that fit the above description. With your permission these individuals will be contacted directly and requested to serve as Delphi panel members. We feel that it is most important that each of the twenty-eight colleges be represented on this panel. I would very much appreciate your returning the form to us by February 4.

Thank you for your assistance and cooperation in this effort.

Cordially yours,

James L. Wattenbarger, Director
Institute of Higher Education

Enclosure

Name of Institution_____

The following list represents top level administrators in our college who are the second echelon of responsibility after the president whom I would recommend as Delphi participants in the study of environmental factors affecting choice of alternatives in decision making.

Name	Position

Return to: Institute of Higher Education
Attn: Mr. Elias G. Nemr
College of Education
University of Florida
Gainesville, Florida 32611

APPENDIX B

INITIAL CORRESPONDENCE TO DELPHI PANEL MEMBERS AND FIRST QUESTIONNAIRE

Your college president has recommended you as one experienced and knowledgeable in the area of community college management and administration and whose job involves high-level decision making for your institution. We are requesting your participation in a study currently being undertaken by the Institute of Higher Education at the University of Florida with the objective of identifying environmental factors that affect the choice of alternatives in the decision making process in Florida's Community Colleges, and the priority ranking of such factors.

Examples of environmental factors affecting decision making as identified in the literature include:

--State of the economy of the state and/or nation
--Changes in technology (i.e., data processing and registration)
--Political pressures (i.e., interest groups on and off campus)
--State and Federal level regulatory agencies
--Amount of time available for decision making
--Amount of financial resources available (i.e., cost of a decision)
--Amount of relevant information available
--State and Federal legislation (i.e., Equal Opportunity or Affirmative Action legislation)
--Expectations of subordinates
--Expectations of superiors
--Demands for power sharing (i.e., faculty unions and student activism)
--Ideological bias or party loyalty of those involved in decision making.

This list should be regarded as illustrative and not definitive in nature.

For procedures, this study will employ a modified Delphi technique which consists of the following three steps:

1. You and other experts (the respondents) from Florida's Community Colleges will be asked to list what you consider as environmental factors that affect your choice of alternatives in decision making. All responses will be reviewed, edited and listed on a second check-off type questionnaire.

2. The respondents will be asked to evaluate the items on the second questionnaire by ranking the priority of each of the identified environmental factors. These responses will be summarized by item and a third questionnaire, which will include these summary data, will be prepared.

3. The respondents will be given a list opportunity to revise their opinions using the information on the third questionnaire. Respondents whose opinions do not conform to majority opinion will be asked either to change their rankings to the majority position or to state briefly reasons for their minority opinion.

It is expected that these final results will indicate a convergence of opinions and will constitute a specific list of environmental factors affecting decision making in Florida's community colleges in 1977.

In order for the results of this Delphi exercise to be of optimum validity and usefulness, it is extremely important that the respondents who agree to serve as panel members (simply by returning the attached questionnaire) continue to serve throughout the Delphi exercise. This will mean reacting to two check-off type questionnaires in addition to the open-ended questionnaire enclosed herewith. However, this will be all that will be requested.

In order to complete this study within a reasonable time frame, and as a matter of practicality, cut-off dates will be set for returning questionnaires. Your continued help is essential to our success in this study, and we request your cooperation.

As you complete the attached questionnaire, please be assured that individual information will not be released or disclosed; the purpose of this study is to obtain group data.

You are kindly requested to complete and return the attached questionnaire before March 20, 1977. Thank you in advance.

Sincerely,

Elias G. Nemr
Institute of Higher Education

EGN:amp
enclosure

APPENDIX C

ENVIRONMENTAL FACTORS IDENTIFIED

BY DELPHI PANEL MEMBERS
(Results Of The First Questionnaire)

Questionnaire 1

Respondent's List of Environmental Factors Affecting Decision Making in Florida's Community Colleges

Name_____

Institutional address_____

_____

_____

Please list below (use additional sheets if necessary) what in your expert opinion, and based on your experience, are environmental factors that affect the choice of alternatives in the decision making process in Florida's Community Colleges. (You may refer to the illustrative list on page 1, but please use your own words in compiling your list.)

Your list:

Return to: Institute of Higher Education
Attention: Mr. Elias G. Nemr
College of Education
University of Florida
Gainesville, Florida 32611

The objectives submitted by respondents to the first questionnaire are listed as received. Individual respondents are designated by number.

1. Regulatory agencies that are concerned with use of State and Federal funds.

   Demands for Collective Bargaining by faculty and non-professional staff.

   State of the economy - unemployment, declining population in some areas.

   Availability of financing to implement desired decisions or projects.

   Technological advances.

2. Financial status of the state.

   State and Federal legislation.

   VA Regulations.

   Unemployment situation.

   Personnel.

   Time.

   Special interest groups on campus.

   State Regulations.

   Union Actions.

   Philosophy of Superiors.

   Interpretation of college policies and procedures.

   Desires of Subordinates.

   Financial Status of the Institution.

3. State of Economy--State.

   State of Economy--Nation.

   Expectations of Superiors.

3. (continued)

Demands for Power Sharing.

Financial Resources Available for Individual Decision.

Time Period for Decision Making Process.

State Legislation.

Federal Legislation.

Availability of Information.

Necessity to Accommodate other Organizations.

Level at which Decisions are made in Organization.

Perceived Possibility of Punitive Action.

4. Philosophy of the local board toward employees, students and community.

Legal implications of the decision.

Long term economic effect, if any.

Short term economic effect, if any.

Available technology.

Time available for study and decision making.

Effects on special interest groups on and off campus.

5. Resources--people, dollars, time.

Institutional traditions--liberal vs. conservative.

Outside Regulation--State, Federal.

Structure of the College--multiple levels create dissonance; multi campus.

Acceptance of change by the Faculty/Administration

Personal Philosophy of top level management.

Lack of long-range planning at all levels.

6. Budget Impact.

Legal Framework.

Precedent effect.

Constituent Reaction.

Prior history of the issue.

Amount of lead time.

(in)Ability to predict scenarios involving this decision.

Coordination with Another Campus.

7. Economy of the area (district), state, and/or nation.

Technological changes.

State (Dept. of Ed.) regulatory agencies.

Time available (for decision making)

Financial resources available.

Student enrollment (current).

Student enrollment projections.

Union activity (State of--i.e., election or representation).

Political Pressures.

Student opinions or demands.

Expectations of Superiors.

State of Federal Grants (requests or funding).

8. Attitude of control board.

State appropriations.

State Board of Education Regulations for Community Colleges.

State and Federal Laws.

Community Interest Groups and individuals.

Amount and perceived validity of information (data) relating to the subject decision.

8. (continued)

Faculty Labor Unions.

Student Fee Income.

Student Demands.

Number of competency of personnel to implement the decision.

Price level and general economic outlook.

Informal organization.

Authority Structure--Legal.

Power Structure--Realities.

Time needed to analyze data and to implement decision.

Alternatives available.

Possibility of evaluating implemented decision.

Personal bias.

Possibility of securing approval of boss.

Possibility of securing the support and cooperation of others involved in implementation.

Relative importance of the decisions requiring immediate attention.

Possibility of the problem solving itself if no decisions made.

Liklihood of securing acceptance & support of relevant state officials.

9. Amount of information available upon which to make decision.

Amount of time available within which to make decision.

Economic considerations--budget, allocations, outside funds, etc.

Legislative mandates without funds to implement--APA, accountability, placement and followup, etc.

Federal restrictions--EA/EO, Title IX, etc.

"Protectionism" of those involved in the process--territoriality, boundary maintenance, etc.

9. (continued)

Local, state and sometimes national political pressure--power games.

Democratic or shared decision-making process--demand for widespread involvement.

Personal factors--expectations of others--Board Members, subordinates, superiors, legislators, etc.

The rapidness of change in all facets of the society and world--technology, labor market, political, economy, etc.

Risk--regardless of the decision, it will surely make some constituency group mad.

Human Nature--people tend not to make tough decisions to avoid Risk.

10. Community needs and expectations.

Financial projections.

Maximum benefits for students.

Town and Town relations.

Costs versus educational gains.

Maintaining goodwill and respect of community.

Availability of sufficient and reliable information.

11. State of the economy of the state and/or nation.

Changes in technology.

Political pressures.

State and Federal level regulatory agencies.

Amount of time available for decision making.

Amount of financial resources available.

Amount of relevant information available.

State and Federal legislation.

Expectations of subordinates.

Expectations of superiors.

11. (continued)

Demands for power sharing.

Ideological bias or party loyalty of those involved in decision making.

12. State Department of Education Regulations.

Local Budgets.

Enrollment Trends (local).

Local Community Mories.

State and Local Political Pressures.

Faculty Activism (unionism).

Administrative Agendas.

Student Educational Needs.

13. Attitudes and value systems of the Board of Trustees.

Attitudes and value systems of the District.

State and Federal regulations and laws.

Funding level or resources available to implement the decision

Pressure groups and their expectations (students, faculty, community, administrators).

The data available.

The time available.

Attitudes and reactions regarding other issues which might spill over into another unrelated decision.

Advice/reaction/etc. of advisory groups in the district.

Relationships of the college with other local and/or state agencies.

14. Pressures from interest groups on and off campus.

Federal agencies plus legislation: USOE, EEOC, OCR.

Amount of resources available to state government and college.

Time available for making decisions.

Administrative Procedures Act--State of Florida

15.

I. Economic Condition

A. National Level
   1. Inflation
   2. Recession or depression
   3. Legislation affecting education
B. State level
   1. Inflation
   2. Recession or depression
   3. Legislation affecting education
   4. Legislative funding

II. Changes in Technology

A. New area industries
B. New methods of production
C. New methods of conducting business (data processing and other electronic aids)
D. Registration innovations
   1. Computer based
   2. Mail
   3. Evenings
   4. Multi-Campus

III. Political Pressures and Political Power

A. Defeated Bond Issues
B. Mediocre expenditures for Education
C. Power of political structures in State government
D. Understanding the political process

IV. State and Federal Regulatory Agencies

A. HEW regulations and changes and directives
B. Student loan agencies
C. Veterans Administration
D. Social Security Administration
E. State Department of Education
   1. Vocational Education Division
   2. Community College Division

V. Time for Decision Making

A. Insufficient lead time scheduled
B. Unplanned changes upset time frame
C. Incorrect estimates preventing timely decision making

VI. Financial Resources Available

A. Current funds available in budget
B. Initial capital outlay cost prohibitive
C. Maintenance too costly

15. (continued)

VII. Amount of Relevant Information Available

- A. Information and data available re new curriculum programs and courses
- B. Information and data available on job availability for current or new programs
- C. Information and data available re current and new program costs
- D. Information and data available on student follow-up and placement
- E. Information and data available on construction costs on new types construction

VIII. State and Federal Legislation

- A. HEW programs, changes, and directives
- B. Equal Opportunity plans
- C. Affirmative Action plans
- D. Various water, air, environmental legislation creating new course needs and affecting current courses

IX. Expectations of Subordinates

- A. Training
- B. Experience
- C. Use of Resources
- D. Loyalty
- E. Motivation
- F. Results

X. Expectations of Superiors

- A. Support
- B. Communication
- C. Authority versus REsponsibility
- D. Recognition

XI. Demands for Power Sharing

- A. Faculty
  1. Loyalty
  2. Unrest
  3. Union oriented
  4. Professionally oriented
  5. Outside forces causing turmoil
- B. Students
  1. Normal conditions
  2. Socio/economic problems
  3. Outside forces causing turmoil
  4. Drugs
  5. Age Groups
  6. Part-time versus full-time

15. (continued)

C. Community Relations
   1. Good
   2. Poor
   3. Normal
   4. Local legislative group
   5. Local city government group
   6. Local school board group
   7. Local advisory groups
   8. Local professional groups

XII. Ideological bias or party loyalty of those involved in decision making

A. Age of some faculty versus student ages
B. Racial problems
C. Union oriented staff versus non-union

XIII. Miscellaneous

A. Security problems
B. Transportation problems
C. Parking problems
D. Vandalism
E. Behavior problems
F. Discipline

16. Level of funding anticipated from all sources.

Adequate time to analyze and develop estimates.

Many changes in regulations and instruction from Federal and State agencies or legislative bodies.

Political processes and/or party loyalties by both internal and external sources.

Adequacy of proposals including factors having an impact.

17. Adequate time to plan, develop, and implement for reasonable assurance of success.

Determination of impact prior to development and implementation.

Demands by agencies for similar requirements or action with unique formats.

18. State & Federal Legislation.

Financial Ability.

Political Pressures.

Lack of Sufficient Information.

Pressures of Time.

Community Attitudes.

19. V. A. Regulations.

Union Pressures.

Limited Latitude to provide Salary Adjustments.

Government Regulations.

Apparent Drop in Enrollment for Future.

Money Squeeze.

20. Economic factors in business.

Types and amount of information available when decision is made.

Conflict with parental authority.

Pressure from peer groups.

Expectations of superiors.

21. Aging of Florida's population.

Moral Standards in Higher Education.

Quality education versus faculty losses.

Faculty salaries versus cost of living increase.

22. Political Pressures.

Amount of Financial Resources Available.

Expectations of Superiors.

22. (continued)

Expectations of Subordinates.

State and Federal Legislation.

State and Federal Regulatory Agencies.

State of the Economy.

Amount of Time available for Decision Making

Amount of Relevant Information Available.

Demands for Power Sharing.

Changes in Technology.

23. Attitudes and perceptions of regulating bodies and peer workers.

State and local economic conditions.

Understanding of the basic mission of the institution.

Time available for decision making versus supervision.

Identifying the locus of power.

Configuration of the physical environment.

Federal and state legislation and regulations.

Local regulatory restrictions.

Kind and quality of data available.

Human incapacity.

24. Physical facilities, type, location and availability.

State of the economy of the state and/or nation.

Changes in technology (i.e., data processing and registration)

Political pressures (i.e., interest groups and individuals on and off campus)

State and Federal level regulatory agencies.

Amount of time available for decision making.

24. (continued)

Amount of financial resources available (i.e., cost of a decision)

Amount of relevant information available.

State and Federal legislation (i.e., Equal Opportunity or Affirmative Action Legislation).

Expectations of subordinates.

Expectations of superiors.

Demands for power sharing (i.e., faculty unions and student activism)

Ideological bias or party loyalty of those involved in decision making.

25. Amount of pertinent information available.

Available budget.

Political pressures especially board of trustees.

Reaction of superiors.

Hurdles such as in-house procedures and state regulations.

26. Local level influences:

1. The Board of Trustees
2. Existing policies and procedures of the institution
3. Projected enrollments, thus available funds, FTE
4. New service areas (geographic)
5. New courses and programs
6. Termination of existing courses and programs
7. Local community needs and requests for course experiences
8. Budgeting, PPBS, stated objectives, long-range planning
9. Faculty and staff (including Administration) influences
10. Committees such as Academic Standards, Curriculum Committee, Faculty All Meetings, Steering-Planning Committee
11. Task Forces such as Reduction-In-Force, Grading Practices, Salary Committee
12. Student needs and influences such as Student Government Association, Student Affairs Committee, Dorm Council
13. Local Advisory Boards for Technical Programs
14. Amount of data (info) available in order to make decisions
15. President's Cabinet - Vice-President, Deans
16. Administrative Council - top administrators and faculty representation
17. Cultural and athletic activities
18. In-House training and external exposure such as conferences.

26. (continued)

State Level influences:
1. State laws and regulations
2. State legislature pending actions
3. Interpretation of state laws by Attorney General such as Residency Classification
4. Division of Community Colleges Central Office decisions and interpretations
5. Other state governmental agencies such as Commissioner of Education's decisions, Division of Vocational Technical decisions.

National level influences:
1. Federal laws and regulations
2. National Agencies such as Veterans Administration, Social Security Administration, Office of Civil Rights
3. HEW interpretations such as BEOG, SEOG, LEEP and other Student Financial Aid.

27. State of the economy of the state and nation.

Political pressures.

Changes in technology.

State and Federal Level Regulatory Agencies.

Amount of time available for decision making.

Amount of financial resources available.

Amount of relevant information available.

State and Federal legislation.

Expectations of subordinates.

Expectations of superiors.

Demands for power sharing.

Ideological bias or party loyalty of those involved in decision making.

28. Financial resources available.

State and Federal level regulations.

Changes in technology.

Amount of time available for Decision Making.

29. Legal Aspects. Will the decision withstand all legal tests?

Funding. In what ways will the decision affect future funding levels of the institution? Future enrollments?

Cost Considerations. Is it affordable? What is the cost/benefit relationship?

State Regulations.

Community Expectations. How will the community react?

Faculty Expectations. Will the decision affect faculty productivity? Faculty morale?

Federal Regulations.

Goals of Instruction. How will the decision affect the achievement of the objectives of instruction?

30. 1. Review available funds, projected fund balance and anticipated revenue.

2. State and Federal regulations governing our activities.

3. Meet the expectations and desires of those I represent.

4. The economy of district, state and nation must have bearing.

5. Time must be available to research and evaluate projected activity.

6. Input from those who will be involved.

31. 1. Responding to State and Federal regulatory agencies with all kinds of reports.

2. Cost of the decision in terms of dollars and man hours.

3. The economic status of both the state and the nation.

4. The needs of the people whom we serve.

5. Changes in technology.

6. State and Federal laws.

32. Financial Limitations.

Personnel Limitations.

Political Limitations.

Power: who has it, who wants it, who dispenses it?

Time available to do the job task.

State and Federal limitations.

33. 1. We must be cognizant of economic conditions as more students will enter the community colleges if economic conditions are poor.

2. State and Federal guidelines such as Title IX have affected decisions re: programs, etc.

3. With the emergence of collective bargaining Administrations must be more open with their faculty or additional problems will arise.

34. State of the economy of the State and Nation.

Changes in technology.

Political pressures.

State and Federal level regulatory agencies.

Amount of time available for decision making.

Amount of financial resources available.

Amount of relevant information available.

State and Federal legislation.

Expectations of subordinates.

Expectations of superiors.

Demands for power sharing.

Ideological bias or party loyalty of those involved in decision making.

35. 1. The state of the college budget.

2. The local historical context in which the college is operating.

3. The available educational technology.

4. The interests of students as perceived by students.

5. The interests of students as perceived by the administration and faculty.

6. State and Federal regulations and guidelines.

7. The time available for making a decision.

8. The relevant evidence available on questions under consideration.

9. The expectations of faculty.

10. The expectations of administrative staff.

11. The expectations of classified staff.

12. The availability of physical facilities.

13. The urgency of the issue.

36. 1. Our college is very closely allied with a grass roots community; therefore, receiving sufficient community input into the decision-making process is very time consuming.

2. Delivering educational services to a very broad constituency creates many ambiguous issues that must be resolved.

3. Greater state control which includes centralization and requirement for a variety of regulations and reports.

4. Decreasing financial resources as a result of inflation and the demands by other state agencies which also causes institutions to increase tuition, which in turn creates a handicap for the economically disadvantaged.

5. Unionization and collective bargaining.

37. 1. More and more educational institutions will have to take the lead in "modeling," as well as teaching about, better ways to relate to the environment. This should include making buildings more energy-efficient, planning schedules in such ways that students and faculty require a minimum of travel time, and faculty and administrators seriously modeling in their own life styles ways that are more ecologically in balance.

37. (continued)

2. Coming shortages of fuels and resulting economic inflation (and drastic likely changes in social-economic patterns) dictate that colleges decentralize academic services . . . establish more autonomous learning centers throughout the community, etc.

3. Curriculum should be more flexible in the future . . . the changing requirements of the economic and social situation should be allowed to determine almost constant modification of curriculum objectives and strategies . . . students and faculty should participate together in this ongoing process . . . and the process itself should be part of the curriculum . . . constant evaluation and modification on the basis of this evaluation . . . curriculum will more and more have to deal directly with solving immediate problems.

4. If colleges take the above suggested lead in helping experiment and develop pragmatic solutions during the coming transition years, they will deserve and receive a larger proportion of citizen dollars . . . however, this share will be considerably less than the total dollars now available. We should begin soon innovating in new ways to use personnel, begin cooperative projects among faculty . . . all of which ultimately should reduce both the college's cost of operating and also the individual living costs of employees.

5. We all should become familiar with some of the basic literature that is beginning to lay the theoretical and practical underpinnings for the new kind of cooperative behavior and new values of self-reliance . . . in such books as Schumacher's SMALL IS BEAUTIFUL: ECONOMICS AS IF PEOPLE MATTERED.

38. 1. Changing racial and ethnic population trends in service area.

2. Rapid Transit.

3. Local, State and Federal Regulations.

4. Changing funding patterns.

5. Economic Trends.

6. Technological changes.

7. Decisions of Governing bodies.

8. Available information on subject matter.

38. (continued)

9. New Legislation on all levels.

10. Governance requirements.

11. Feedback from superiors and/or subordinates.

39. Legislative Action--State/Federal.

District Administration.

Superiors' Decision.

Subordinates' Action.

Council for Student Affairs.

Management Council--Campus.

On-line Systems.

Student Needs.

40. Policies of the system.

Decisions already made within system.

Amount of relevant information available.

Time framework of decision making process.

Individual personalities of persons effected by decision.

External political pressures (federal, state, local, professional associations).

Potential effects of decision within the system.

Potential effects of decision outside of college system.

Costs of decision (financial, time, manpower).

Resources available (financial, equipment, manpower).

Philosophical framework of decision (moral implications, etc.).

41. 1. Population trends in our service area.

2. Changes in the student profiles.

3. Possible development of mass transit, and/or of major modifications to the public transportation system.

4. State and Federal legislation.

5. State and Federal level regulatory agencies.

6. Demands for power sharing.

7. State of the economy (nation, state, and service area).

8. Significant changes in technology.

9. Political pressures and significant changes in political pressures.

10. Level of state funding.

11. Tuition and fee schedule for students.

42. Federal and State legislation and regulations.

Budgetary limitations.

Lack of accurate, pertinent data.

Committee meetings, out-of-town trips and similar activities which consume too much time.

Not enough lead time to enable proper decision making.

43. State of the economy of the state and nation.

Changes in technology.

Political pressures.

State and Federal level regulatory agencies.

Amount of time available for decision making.

Amount of financial resources available.

Amount of relevant information available.

44. (continued)

State and Federal legislation.

Expectations of subordinates.

Expectations of superiors.

Demands for power sharing.

Ideological bias or party loyalty of those involved in decision making.

Training, experience and motivation of subordinates, contemporaries, and superiors.

45. Board of Trustees priorities as determined by community pressures and personal principles.

Alumni--particularly in the areas of college name change, school colors, programs, etc.

Legislative intent in curriculum areas.

An attempt in sharing of managerial rights by faculty union.

Faculty Union interjects many pressures inwardly and outwardly on Trustees and Administrators in decision making.

Public Employees Relations Commission rulings in all cases relating to Community College Rules.

Student Body recommendations especially in areas of student activities, clubs, funds, student newspaper, etc.

Special interest groups.

Research--publicized in journals connoting successful programs, etc.

46. Restrictions of national and state boards/agencies, especially in related health occupations curricula.

State Department rules.

Community opinion.

Administrative Council opinions.

Department chairperson ideas.

Relevant committee decision.

47. State and Federal legislation.

Availability of financial resources.

Changes in technology.

Demands by faculty unions.

48. Federal, State and institutional regulations.

Expectations of superiors and subordinates.

Relevant information available.

Financial Resources.

49. Legislative appropriation.

Division of the appropriation among the 28 community colleges.

The organizational structure of the college.

The willingness of top-level administrators to share the decision-making process with second-level administrators.

Individual perceptions of the boundaries of assigned areas of administrative responsibilities.

State and Federal reporting expectations.

Amount of time available for decision-making.

Amount of time available for planning.

Accurate communications among administrators (common understandings).

In-house opportunities for advancement - including the positive and negative effects upon morale and the long-term commitment to the college.

Lack of privacy and protection from interruptions when planning.

Philosophical and practical approaches to administrative style - differences frequently bring about conflict.

50. 1. Philosophy of the college.

2. Personal philosophy and commitment.

3. Committment to the clientele services.

50. (continued)

4. Economic level of clientele served.

5. Amount of flexibility within local and state regulations.

6. The flexibility, or the lack of flexibility, from supervisors.

7. The research and information available.

8. The expert opinions of others; i.e., subordinates, consultants, etc.

51. The ability to have control over making a decision.

Expectations of superiors and their willingness to accept my decision.

The amount of available information and data needed to make a decision.

The ability to financially implement the decision.

The amount of time available for careful consideration and study of the decision and its consequences.

Expectations of other groups involved in the decision.

Legislation dealing with the decision.

52. 1. Generation of F. T. E.

2. Expectation of Administrative Leaders.

3. Current College Budget.

4. Economic Environment in the College District.

5. Economic Environment in the Naiton.

6. State Requirements.

7. Federal Requirements.

53. 1. Number of resource (internal and external) personnel to complete each alternative.

2. Amount of time required to complete each alternative as compared to the time the results are needed.

53. (continued)

3. Advantages to the institution of each alternative.

54. 1. State of the economy.

2. Federal, state, and local legislation.

3. State and federal regulatory agencies.

4. Population changes.

5. Physical environment.

6. Desirability of additional education.

7. Unionization.

8. Governing board appointments.

9. Fiscal resources.

10. Personnel resources.

55. Clarity and intra-institutional awareness of college mission, goals, and objectives.

Capability of decision-makers.

Degree to which college decisions are monitored by media.

Power relationships among and between administrators, faculty, career employees, students and Board of Trustees.

Cost-benefit ratios of alternatives.

Availability of Resources.

Level of participation by faculty, career employees, and students in the decision-making process.

Interpersonal relations among upper level administrators.

External restraints placed on institution by laws and regulations.

Socio-economic nature of community served by college.

Sensitivity of decision-makers to concerns of other administrators, faculty, and students.

55. (continued)

Willingness of those within institution who are not decision-makers to voice their concerns about institutional policies.

Management styles of upper level administrators.

56. Perceived College Philosophy.

Actual College Philosophy.

Faculty Expectations.

Collective Bargaining.

State and Federal Legislation.

Expectations of President.

Expectations of Board of Trustees.

Condition of State and Federal Economy.

Expectations of Subordinates.

Expectations of Superiors.

Political Pressure.

Management Support Systems (Data Processing)

Budget Considerations.

Staffing Patterns (Tenured faculty)

Loyalty to Administration Head(s).

Another Institution of Higher Education Located in same Locale.

Existing State of Communication Channels Within Institution.

Salary Schedule of Institution.

Management Information Available.

Expectations of Students.

57. College Policy--which are, of course, consistent with State rules and regulations.

57. (continued)

State laws and regulations if the subject is not in college policy.

Compatability with college philosophy and goals.

Compatability with college past practices (precedent).

Availability of financial resources, space and material.

Urgency--time required to make the decision.

Community expectations both in house and external.

Demands for relevant employee input.

Expectations of the President.

State of the art technologically.

Past practices of other Florida community colleges.

Suggestions from outside experts--consultants.

Suggestions from outside organizations--FACC, IRC, AAJC, Auditors, Accreditation teams, and the like.

58. Environmental conditions.

Technical advances.

Political power.

Federal regulation.

State regulation.

Time.

Good expectations.

59. 1. State of the economy--local, state, and national.

2. Changes in technology.

3. Political pressures.

4. State and Federal level regulatory agencies.

5. Amount of time available for decision making.

59. (continued)

6. Amount of financial resources available.
7. Amount of relevant information available.
8. State and Federal legislation.
9. Expectations of superiors.
10. Expectations of subordinates.
11. Expectations of college community (faculty, staff, students).
12. Expectations of community citizens.

60. Amount of financial resources available.

State and Federal regulatory agencies.

State and Federal legislation.

State of the economy of the State.

The number of persons in each age group in the District.

Manpower needs of business and industry in the District.

Changes in technology.

Union campaigns.

61. Economic conditions in Florida.

Technological developments.

Political pressures.

Government regulations and enforcing agencies.

Available time.

Available information.

Federal and state laws.

Fiscal resources and constraints.

Expectations of colleagues.

Employee morale.

Union organizational efforts.

62. Legal constraints
    Federal--law and regulations
    State--law and regulations
    Local, City, County, District

    Political Pressure
    Faculty input
    Staff input
    Community input

    Economic considerations
    FTE funding, fees, enrollments

    Time frame constraints

    Goals of institution (does "it" fit the mission)

    Personal bias, morality, etc.

63. Information available to decision makers.

    Personal friendships of long-standing duration.

    Ideological bias of decision-makers.

    Personal ambition of decision makers and others wishing to influence the decision-making process.

    Expectations of superiors and subordinates.

    Requirements and expectations of outside agencies.

    General ideological climate of the community.

    Decision makers feeling of job security or insecurity.

    Economic and technological constraints.

    Trading in favors or expected future payoffs (quid pro quo).

64. 1. Philosophy of T.C.C. Board of Trustees.

    2. Reaction expected from Faculty Senate.

    3. Effect on Budget.

    4. Audit Reports--past and future.

    5. Press of other activities--depends to some extent on time of year.

64. (continued)

6. EA/EO Reports and visits.

7. Reaction of Career Service Committee.

8. What kind of day its been.

9. What other colleges are doing.

65. 1. Impact or effect created on the student.

2. Impact or effect created on overall College program.

3. Impact or effect created on Student Affairs Office personnel.

4. Amount of available valid precise information relative to the problem.

5. Exact identification of the problem prior to reaching the decision.

6. Sufficient justification to support the decision.

7. Authority and necessary mechanics to see the decision through its conclusion.

8. Superior evaluation.

9. Financial support.

10. Time alloted.

66. If we are talking about expanding programs to include large groups of people and course offerings, one of the most serious environmental factors that influence us in decision making is the fact that the Florida Community Colleges have never been properly funded by the Legislature. Each year we are told what a fine job we are doing and then when the time for funding comes we become the step-child of the Legislature.

The Administrative Procedures Act--a product of the Legislature, while exemplary in intent has in my opinion been burdensome, time consuming and costly to community colleges. I believe there are better ways of "governing in the sunshine" at less expense and inconvenience to the college.

If we are talking about changing course of study, programs, etc., one of the greatest environmental factors that affect the choice of alternatives in decision making process is people's resistance

66. (continued)

to change: administration, faculty and students are all resistant to change to a large degree. Yet by comparison to other institutions and agencies, we are rapid to change. Old outmoded methods of instruction die horribly slow and to me it seems a paradox that those of us in education who are dealing with change, are often the most resistant to change. I prefer to refer to this as the environmental factor of "the human condition." We need to study the change process without getting involved in Kant's concept of Phoronomy.

67. 1. Amount of Relevant Information Available: The community college budgets are due in the Department of Education on or before June 1 of each year. Many times the budgets are prepared before colleges know what their state appropriations are going to be; therefore, most budgets are prepared on a conservative basis. Until the state legislature moves the sessions back (January or February) or the fiscal year is moved forward (September or October), the colleges will always have this problem and it will always have a great impact on the decision making process.

2. Amount of financial resources available: Until the state legislature appropriates the funds that are actually needed by the colleges, this problem will always exist. The state should either adequately fund the programs we already have or limit the programs that will be made available to the public.

3. Demands for Power Sharing: The legislature has put the colleges in a very awkward position. They have charged administrators with duties and responsibilities and have turned around to require the colleges to collectively bargain with employees. The colleges should never be put in a position to bargain away the duties and responsibilities that have been charged to them; therefore, the legislature should place more restrictions on the items a college can bargain.

68. Financial Resources.

State and Federal Regulations.

Number of Available Personnel.

Community Desires and Interests.

State of Local Economy.

69. Impact on students.

Impact on instructional program.

Impact on curriculum organization.

Available resources, i.e., fiscal, facilities, LRC, equipment.

Administrative feasibility of implementing the decision.

Political feasibility.

70. 1. State funding.

2. Public support or lack of--community norms.

3. State statutes and regulations.

4. Past history of any specific college.

5. Personality of Chief Officer (President) of institution.

6. Federal statutes and regulations.

7. Philosophical mix of administrators and faculty members.

8. Needs of the community--of people, business, etc.

9. Nature of student body.

71. Financial Cost/Need.

Institutional Objectives/Philosophy.

College President and/or DBT Support.

SBE Staff Support.

Legislative Auditor Reaction.

Florida Regulations.

College Staff Support.

Time Frame.

Individual Expertise.

APPENDIX D

THE SECOND QUESTIONNAIRE

April 29, 1977

Dear Delphi Panel Member:

We would like to thank you for your response to the first phase of our study of environmental factors that affect decision making in Florida's Community Colleges. We are looking forward to your continued cooperation in this, the second of the three phases of our study.

All responses from the first, open-ended questionnaire have been summarized and tabulated in the enclosed questionnaire, in which you are asked to assign importance ratings to the identified 23 environmental factors. Upon completing this questionnaire, please return it within five days so that data may be tabulated in time for the third and final phase of this study. A stamped and addressed return envelope is enclosed for your convenience.

We appreciate your continued cooperation and assistance in this project. For the success of the Delphi Technique, it is essential that each Delphi panel member participate in all three phases of the study.

Sincerely,

Elias G. Nemr
Institute of Higher Education
University of Florida

EGN:amp
enc.

QUESTIONNAIRE II

*INTRODUCTION: This questionnaire consists of 23 statements of possible environmental factors that affect the choice of alternatives in the decision making process in Florida's community colleges. Using the answer key as shown below, you are asked to respond to each statement by indicating your assessment of the degree of importance for that environmental factor.

*INSTRUCTIONS: (1) Indicate your responses by crossing out the number following each statement which corresponds to your assessment of the relative importance of that factor; (2) you are encouraged to make any comments concerning your response to a particular statement in the space provided; (3) please try to respond to all statements.

*EXAMPLE: KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance.

Rating	Environmental Factor	Comment (optional)
1 2 3 ~~4~~ 5	17. The stated policies and set procedures of the college	
1 ~~2~~ 3 4 5	18. Human resources	

The response to statement 17 above indicates that the respondent believes that this environmental factor plays a role of high importance (4) in affecting the choice of alternatives in the decision making process in Florida's community colleges.

For statement 18, the response indicates that the respondent believes that this environmental factor plays a role of low importance (2) in affecting the choice of alternatives in the decision making process in Florida's community colleges.

Your name_____ Institutional Address_____

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance

Rating	Environmental Factor	Comment (optional)
	1. Federal legislation and regulation. This includes factors such as:	
1 2 3 4 5	(a) U. S. Supreme Court rulings	
1 2 3 4 5	(b) Equal Opportunity/Affirmative Action legislation	
1 2 3 4 5	(c) Health, Education & Welfare	
1 2 3 4 5	(d) Veterans Administration	
1 2 3 4 5	(e) U. S. Office of Education	
1 2 3 4 5	(f) Social Security	
1 2 3 4 5	(g) Congressional appropriations	
1 2 3 4 5	(h) Financial aid programs, i.e., BOEG, SEOG, Title IX, LEEP	
1 2 3 4 5	(i) Other (please specify)	
1 2 3 4 5	(j) EEOC (Equal Employment Opportunity Commission)	
1 2 3 4 5	(k) OCR (Office of Civil Rights)	
	2. State legislation and regulation. In the State of Florida this includes:	
1 2 3 4 5	(a) Division of Community Colleges	
1 2 3 4 5	(b) Division of Vocational-Technical Education	
1 2 3 4 5	(c) Interpretation of Law by Attorney General	
1 2 3 4 5	(d) State Board of Education	
1 2 3 4 5	(e) State Department of Education	
1 2 3 4 5	(f) Commissioner of Education	
1 2 3 4 5	(g) The Florida Legislature	
1 2 3 4 5	(h) Rulings of State courts	
1 2 3 4 5	(i) Public Employees' Relations Commission	
1 2 3 4 5	(j) Administrative Procedures Act	
1 2 3 4 5	(k) Other (please specify)	
	3. Rules and regulations of:	
1 2 3 4 5	(a) Accrediting agencies	
1 2 3 4 5	(b) Professional associations	
1 2 3 4 5	(c) Union apprenticeship programs	

Key: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance

Rating	Environmental Factor	Comment (optional)
	4. Faculty needs and interests as expressed through:	
1 2 3 4 5	(a) faculty senate	
1 2 3 4 5	(b) a faculty union	
1 2 3 4 5	(c) a collective bargaining organizational drive	
	5. Student needs and interests & their expression:	
1 2 3 4 5	(a) parental pressure	
1 2 3 4 5	(b) student government	
1 2 3 4 5	(c) student rioting, etc.	
1 2 3 4 5	6. Career service personnel needs and interests and their expression (union or non-union)	
	7. The Local Community:	
1 2 3 4 5	(a) the racial and ethnic make-up of the service area population	
1 2 3 4 5	(b) the age make-up	
1 2 3 4 5	(c) rural or urban setting	
1 2 3 4 5	(d) liberal or conservative orientation	
1 2 3 4 5	(e) manpower needs of local business and industry	
1 2 3 4 5	(f) monitoring by local press, radio & T. V.	
1 2 3 4 5	(g) the local Public School System	
1 2 3 4 5	8. The College Board of Trustees	
	9. Political considerations:	
1 2 3 4 5	(a) special interest groups or individuals on or off campus	
1 2 3 4 5	(b) local civic organizations and service clubs	
1 2 3 4 5	(c) local advisory groups	
1 2 3 4 5	(d) quid pro quo factor	
1 2 3 4 5	(e) the local legislative delegation	
1 2 3 4 5	(f) alumni	

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance, (5) Maximum Importance

Rating	Environmental Factor	Comment (optional)
1 2 3 4 5	10. Changes in technology: The availability of appropriate technology to effectively implement a decision, i.e., advances in the field of data processing and their effect on registration procedures. Another example may be a breakthrough in solar or wind energy that will free the colleges from heavy energy bills resulting in extra funds for faculty salaries	
1 2 3 4 5	11. Energy: The question of energy as it affects physical plant operation (i.e., level of lighting, heating and air-conditioning) and its impact on scheduling. Also, such aspects as one central location catering to commuters or several satellite campuses to take learning to the learner	
1 2 3 4 5	12. The expectations and personality of the college president (and other superiors the respondent may report to, if any)	
1 2 3 4 5	13. The expectations, age, personal philosophy, bias, party loyalty or ideological orientation of the peers of the decision maker	
1 2 3 4 5	14. The expectations and personality of subordinates; the expectations, motivation, loyalty, expertise and training, philosophy, bias, party loyalty or ideological orientation of subordinates	
1 2 3 4 5	15. College history, traditional practices and past, precedent setting decisions	

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance

Rating	Environmental Factor	Comment (optional)
1 2 3 4 5	16. The stated mission, philosophy, and goals of the college	
1 2 3 4 5	17. The stated policies and set procedures of the college	
1 2 3 4 5	18. Human resources: The cost of a decision in terms of the number of personnel needed for implementation and their level of training and competency	
1 2 3 4 5	19. Financial resources: the cost of a decidion in terms of dollars needed for implementation. These dollars may come from local (i.e., student fees), state (i.e., legislative appropriations partially determined by the FTE factor), and/or Federal sources	
1 2 3 4 5	20. Physical resources: The cost of a decidion in terms of the availability of space (i.e., classrooms, labs, gyms, shops, etc.) and equipment needed for implementation	
1 2 3 4 5	21. Prestige: The amount of reward or risk involved for the administrator responsible for the decision	
1 2 3 4 5	22. Information available: The amount, kind and quality of information, data and research related to the problem or question on hand that is available to the decision maker. This bears directly on the ability of those concerned to define the problem on hand exactly and precisely	
1 2 3 4 5	23. Time available: The amount of time available and/or needed for alternatives to be studied and for a decision to be considered	

APPENDIX E

THE THIRD QUESTIONNAIRE

June 17, 1977

Dear Delphi Panel Member,

We would like to thank you for your response to the second phase of our study of environmental factors that affect decision making in Florida's Community Colleges. We are looking forward to your continued cooperation in this, the third and last phase of our study.

All responses from the second questionnaire have been used to calculate a consensus position for each of the identified factors. For each factor the median response has been circled (i.e., the priority rating above and below which fifty percent of all responses fell). Your own rankings from questionnaire II have also been marked in red. The purpose of this final questionnaire is to elicit your opinion of the importance of each environmental factor now that you have some indication of how other Delphi panel members have responded.

Upon completing this questionnaire, please return it within five days so that final data may be computed and tabulated. A stamped and addressed return envelope is enclosed for your convenience.

We appreciate your continued cooperation and assistance in this project. For the success of the Delphi procedure, it is essential that each Delphi panel member participate in the full three-phase cycle.

Again, our thanks.

Sincerely,

Elias G. Nemr
Institute of Higher Education
University of Florida

EGN:amp
enc.

*INTRODUCTION: This questionnaire consists of 23 statements (the same as used in Questionnaire II) of possible environmental factors that affect the choice of alternatives in the decision making process in Florida's community colleges. The consensus position for each factor, indicated by the median response, has been circled (i.e., the priority ranking above and below which fifty percent of all responses fall). Your own individual priority rankings, from Questionnaire II, have also been marked in red. Selected comments made by panel members on Questionnaire II have also been included as they may present a new perspective.

You are asked to compare the consensus ranking (circled) with your own ranking (marked in red) for each statement and to indicate your assessment in view of the comparison.

*INSTRUCTIONS: (a) Indicate your response by crossing out the number preceeding each statement which corresponds to your assessment of the relative importance of that factor in light of your own previous ranking (marked in red) compared to the consensus ranking (circled).

Then, (b) if the ranking you cross out is different from the one which is circled (the consensus), please indicate briefly some reasons for your opinions in the comment section.

(c) please try to respond to all statements though you may have omitted some on the last questionnaire.

*EXAMPLE: *EXAMPLE: *EXAMPLE: *EXAMPLE: *EXAMPLE

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance

Rating	Environmental Factor	Comment (optional)
1 2 3 ~~4~~ 5	17. The stated policies and set procedures of the college	
1 2 3 ~~4~~ 5	18. Human resources	X Y Z

The response to statement 17 above indicates that the respondent accepts the consensus position and changes his ranking from Low Importance (2) to High Importance (4).

For statement 18, the respondent indicates that he or she rejects the consensus ranking of High Importance (4) and assigns this statement maximum importance (5) as he or she has done previously.

X Y Z is given as reason for rejecting consensus opinion.

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance

Rating	Environmental Factor	Comment (optional)
	1. Federal legislationand regulation. This includes factors such as:	
1 2 3(4)5	(a) U. S. Supreme Court rulings	
1 2 3(4)5	(b) Equal Opportunity/Affirmative Action legislation	
1 2 3(4)5	(c) Health, Education & Welfare	
1 2 3(4)5	(d) Veterans Administration	
1 2 3(4)5	(e) U. S. Office of Education	
1(2)3 4 5	(f) Social Security	
1 2(3)4 5	(g) Congressional appropriations	
1 2 3(4)5	(h) Financial aid programs, i.e., BOEG, SEOG, Title IX, LEEP	
1 2(3)4 5	(i) EEOC (Equal Employment Opportunity Commission)----------	We are under court order to increase our percentage of minorities
1 2 3(4)5	(j) OCR (Office of Civil Rights----------	Affects personnel area only
	2. State legislation and regulation. In the State of Florida this includes:	
1 2 3(4)5	(a) Division of Community Colleges	
1 2 3(4)5	(b) Division of Vocational-Technical Education	
1 2(3)4 5	(c) Interpretation of Law by Attorney General	
1 2 3(4)5	(d) State Board of Education	
1 2 3(4)5	(e) State Department of Education	
1 2 3(4)5	(f) Commissioner of Education	
1 2 3 4(5)	(g) The Florida Legislature	
1 2 3(4)5	(h) Rulings of State Courts	
1 2(3)4 5	(i) Public Employees' Relations Commission	
1 2 3(4)5	(j) Administrative Procedures Act	
	3. Rules and regulations of:	
1 2 3(4)5	(a) accrediting agencies (i.e., Southern Association of Colleges & Schools)	
1 2(3)4 5	(b) accrediting professional associations (i.e., Nursing Board)	
1(2)3 4 5	(c) union apprenticeship programs	
	4. Faculty needs and interests as expressed through:	
1 2 3(4)5	(a) faculty senate	
1(2)3 4 5	(b) a faculty union ----------	No union on our campus at present.
1 2(3)4 5	(c) a collective bargaining organizational drive	Should one be formed this will increase in importance.

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance; (5) Maximum Importance

Rating		Environmental Factor	Comment (optional)
	5.	Student needs and interests & their expression:	
1(2)3 4 5		(a) parental pressure	
1 2(3)4 5		(b) student government	
(1)2 3 4 5		(c) student rioting, etc.----------	i. If this were to take place! ii. Difficult to relate to in 1977 iii. Other student feedback important i.e., 'tone' of college newspaper and direct communication with students
	6.	Career service personnel needs and interests and their expression (union or non-union)	
1 2 3(4)5			
	7.	The Local Community:	
1 2 3(4)5		(a) the racial and ethnic make-up of the service area population	
1 2(3)4 5		(b) the age make-up	
1 2(3)4 5		(c) rural or urban setting	
1 2(3)4 5		(d) liberal or conservative orientation	
1 2 3(4)5		(e) manpower needs of local business and industry	
1 2(3)4 5		(f) monitoring by local press, radio & T.V.	
1 2(3)4 5		(g) the local Public School System	
1 2 3 4(5)	8.	The College Board of Trustees	
	9.	Political considerations:	
1 2(3)4 5		(a) special interest groups or individuals on or off campus	
1 2(3)4 5		(b) local civic organizations and service clubs	
1 2(3)4 5		(c) quid pro quo factor (exchange or return favors)	
1 2 3(4)5		(d) local advisory groups	
1 2 3(4)5		(e) the local legislative delegation	
1(2)3 4 5		(f) alumni----------	Through placement and follow up studies this is becoming increasingly important
	10.	Changes in technology:	
1 2 3(4)5		The availability of appropriate technology to effectively implement a decision, i.e., advances in the field of data processing and their effect on registration procedures. Another example may be a breakthrough in solar or wind energy that will free the colleges from heavy energy bills resulting in extra funds for faculty salaries	

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance, (5) Maximum Importance

Rating		Environmental Factor	Comment (optional)
1 2 3(4)5	11.	Energy: The question of energy as it affects physical plant operation (i.e., level of lighting, heating and air-conditioning) and its impact on scheduling. Also, such aspects as one central location catering to commuters or several satellite campuses to take learning to the learner.	
1 2 3(4)5	12.	The expectations and personality of the college president (and other superiors the respondent may report to, if any)----------	This is the most significant of all
1 2 3(4)5	13.	The expectations, age, personal philosophy, bias, party loyalty or ideological orientation of the peers of the decision maker	
1 2 3(4)5	14.	The expectations, age, personality, motivation, loyalty, expertise and training, philosophy, bias, party loyalty or ideological orientation of subordinates----------	Timing and energy level of subordinates are important
1 2(3)4 5	15.	College history and traditional practices	
1 2 3(4)5	16.	The stated mission, philosophy, and goals of the college	
1 2 3(4)5	17.	The stated policies and set procedures of the college	

KEY: (1) Minimum Importance; (2) Low Importance; (3) Medium Importance; (4) High Importance. (5) Maximum Importance

Rating		Environmental Factor	Comment (optional)
1 2 3(4)5	18.	Human resources: The cost of a decision in terms of the number of personnel needed for implementation and their level of training and competency	
1 2 3(4)5	19.	Financial resources: the cost of a decision in terms of dollars needed for implementation. These dollars may come from local (i.e., student fees) state (i.e., legislative appropriations partially determined by the FTE factor), and/or Federal sources.	
1 2 3(4)5	20.	Physical resources: The cost of a decision in terms of the availability of space (i.e., classrooms, labs, gyms, shops, etc.) and equipment needed for implementation	
1 2(3)4 5	21.	Prestige: The amount of reward or risk involved for the administrator responsible for the decision	
1 2 3(4)5	22.	Information available: The amount, kind and quality of information, data and research related to the problem or question on hand that is available to the decision maker. This bears directly on the ability of those concerned to define the problem on hand exactly and precisely	
1 2 3(4)5	23.	Time available: The amount of time available and/or needed for alternatives to be studied and for a decision to be made.	

APPENDIX F

ENVIRONMENTAL FACTORS AFFECTING DECISION MAKING, RANK ORDERED, IMPORTANCE RATED, WITH CALCULATED MEDIAN AND DIVERGENT OR APPROPRIATE COMMENTS

Environmental Factors Affecting Decision Making
by Order of Importance

Rank	Environmental Factors	Median
	Maximum Importance	
1	The college board of trustees (8)	4.930

Comments

--Although we adhere strictly to board policy, they leave much administrative latitude to the staff.
--From a practical standpoint, the most important factor.
--Board is very receptive to administration recommendation.
--They have absolute authority.

2	The Florida State Legislature (2-g)	4.896

Comments

--Importance stems from appropriations.
--All funds for community education come from legislature.
--Many choices still available after legislative session.
--While it makes appropriations, I do not feel it is of major importance.
--Must be followed!

	High Importance	
3	Financial resources (19)	4.448

Comments

--Along with people the most important resource.
--Without adequate $ we cannot operate.
--We feel strongly about this one!
--This rates maximum importance.
--Money rules all--to deny this is not to face reality!
--Very important!
--We don't make many decisions without first looking at the price tag! Money governs every aspect of our operation and is the first to be considered, along with legality, in making any decision of significance.

Rank	Environmental Factors	Median
4	The college president (12)	4.419

Comments

--Let us make no mistake, this is the single most significant factor of all!
--The most important factor.
--The president is the key to the whole operation
--I disagree--this is not the most significant factor in decision making. If it were, then I could be replaced by a clerk.
--We have a strong president.
--Being a small college, we are in close contact with the president making this factor of maximum importance.
--Most significant! !

5	Division of Community Colleges (2-a)	4.271

Comments

--Exerting more and more direct influence on day to day college activities.
--Influence from Division rates no more than medium importance.
--Controls institutional funding and reporting--thus it has maximum impact.
--Has lost the significance and force of earlier days.
--Of maximum importance and is gaining.
--As a regulatory body they are very important.
--Our ruling body--maximum importance.
--The Division's decisions have immediate importance.

6	The stated policies and set procedures of the college (17)	4.250

Comments

--We refer back to this regularly to justify many things.
--They often have vague statements.
--These are only guides--hence of medium importance.
--The bible--most significant.
--Apart from the board of trustees and the physical existence of the college, nothing is more important.
--Of maximum importance--otherwise, they have no meaning.
--This is the most significant of all.
--Good policies beget good procedures.
--I can't believe other respondents would rate this anything less than maximum importance.

Rank	Environmental Factors	Median
7	The stated mission, philosophy, and goals of the college (16)	4.217

Comments

--Not fully understood and no strong commitment--medium importance.
--The mission and philosophy should be the overriding considerations for any decision. They provide the structure for short-range and long-range planning.
--I believe medium importance is more realistic.
--We refer back to this regularly to justify many things.
--Often vague.
--The most significant.
--Apart from the board of trustees and the physical existence of the college, nothing is more important.
--Of maximum importance--otherwise, they have no meaning.

8	Human resources (18)	4.163

Comments

--The most valuable resource any college can have.

9	Information (22)	4.152

Comments

--It is difficult to imagine anything as imporant to a decision maker as information.
--Should be of maximum importance.
--Information is the key to power within an institution. He who has the data (or control thereof) has power.
--It is not always possible to operate on the basis of complete information--must take some risks.
--Poor decisions generally arise from poor information and not having all the facts.
--My rating of minimum importance reflects lack of information available at this institution.

10	Physical resources (20)	4.122

Comments

--Very important in a small rural college.
--Not as important as human resources.
--Very critical in starting new programs.
--In a small college with limited space, this is of maximum importance.

Rank	Environmental Factors	Median
11	Financial aid programs, i.e., BOEG (i-h)	4.054

Comments

--More than 1/2 of our student body receive some kind of financial aid.
--Increasingly important to students.
--These programs translate into much of the enrollment.
--Becoming bigger every year.
--Vital to this institution.

12	Equal Opportunity/Affirmative Action legislation (1-b)	4.023

Comments

--Long period of time needed before full impact realized.

13	State Department of Education (2-e)	3.989

Comments

--Controls education in the state, hence of maximum importance.

14	State Board of Education (2-d)	3.987

Comments

----Advisory only--low importance.
--Maximum importance--we do function under this board.

15	U. S. Supreme Court rulings (1-a)	3.986

Comments

--Law of the land--maximum importance.
--Operational impact take a long time to be felt. Dramatic nature of some decisions disproportionate to actual effects.
--Few of these affect me directly, yet!
--Interprets laws of our country and affects every governmental agency.
--Effects not as directly noticeable as interpretations of federal agencies.
--Supreme Court rulings are final.

Rank	Environmental Factors	Median
16	Time (23)	3.976
	Comments	
	--It is extremely important not to make snap decisions. --If information is made available, time for decision making is usually adequate. --Time is always relative, depends upon amount of personal time the administrator and others are willing to give.	
17	The racial and ethnic make-up of the service area population (7-a)	3.965
	Comments	
	--Minorities exert very little pressure. --Our plans routinely take this factor into account.	
18	Manpower needs of local business and industry (7-e)	3.963
	Comments	
	--Strongly affects vo-tech programs. --Of low importance to us--no local industry, service jobs only. --Industry plays important role in our planning.	
19	Changes in technology (10)	3.955
	Comments	
	--I do not see the impact of appropriate technology on decision making. --Human factors (personality et al.) more important. --Potential impact yes, actual impact, no.	
20	The peers of the decision maker (13)	3.950
	Comments	
	--Sometimes decisions have to be made that are not popular with peers. --I expect each administrator to be his or her own man or woman.	

Rank	Environmental Factors	Median
21	Commissioner of Education (2-f)	3.947

Comments

--Influence largely indirect.
--Depends on personality in office.
--Little direct input--obvious potential for great input.

22	Rulings of State courts (2-h)	3.941

Comments

--Binding as a rule.
--Must be followed.
--Less impact than state agencies.

23	Administrative Procedures Act (2-j)	3.933

Comments

--Process affected but not substance.
--Logistics problem--little impact otherwise.
--Of more concern to other offices.
--Very sensitive issue in this college.
--The requirement to publish your intended rule changes in advance of adoption does not affect the decision to change the rule.
--A lot of worry--little practical impact.
--What a waste of taxpayers' money!

24	Energy (11)	3.921

Comments

--Should be rated maximum importance.
--Energy will have maximum importance in years to come. It will affect modes of instruction, location of course offerings, and physical plant design. May be of high importance now but will certainly be of maximum importance in years to come.
--We are very energy conscious.
--Still relatively a small portion of our budget--but increasing!
--This factor is make or break; both on the question of energy availability and the enormously escalating costs. We'd better get with it!

Rank	Environmental Factors	Median
25	Accrediting agencies (3-a)	3.913

Comments

--Powerful bodies.
--Source of strength.
--Influence of state agencies greater.
--Becoming less of a factor.
--Once accreditation achieved, impact not great.

26	Veterans Administration (1-d)	3.896

Comments

--Demanding, but only about a relatively small segment of student population.
--They deal with a small number of our students only.
--They change often.
--Not as significant as many perceive it. Concerted effort would eliminate the difficulty.
--VA rulings and visits very important.

27	Health, Education and Welfare Department (1-c)	3.895

Comments

--No direct impact.
--HEW rulings and visits very important.
--Imposes constraints that take away responsibility.

28	Local advisory groups (9-c)	3.868

Comments

--Usually not very effective.
--Not much influence on decisions made by college.
--Essential and mandatory in occupational areas.
--Not much pressure here.

29	The Subordinates of the decision maker (14)	3.859

Comments

--Timing of decisions and 'energy level' of subordinates are important.
--This may be important sometimes but is not a major factor.

Rank	Environmental Factors	Median
30	Faculty Senate (4-a)	3.848

Comments

--We have no faculty senate, thus minimum importance rating.
--We do not have a faculty senate as such on our campus.
--There is some question as to whether the senate represents faculty opinion.
--We work closely with them.
--Not an effective organization on this campus.
--Not applicable.
--We have a strong and responsible senate.
--Faculty politics not consistent enough to generate great importance.
--Not very active.
--Limited effectiveness.

31	The local legislative delegation (9-c)	3.846

Comments

--Local legislators are our life blood.
--Ours not particularly effective in the total legislative picture.
--This area has poor representation for the college.
--We seldom hear of them.
--We have close rapport.

32	Career service personnel (6)	3.843

Comments

--Career service personnel do not impact institutional decision making nearly as much as faculty, administrators and students do.
--Not that active on our campus.
--They should be more influential.
--We have a strong career service committee.

33	Division of Vocational-Technical Education (2-b)	3.843

Comments

--Does not affect my college significantly.
--We do not have vocational courses, only technical.
--Less than medium influence.
--Most important to area vocational schools.
--We don't "come under" this division.

Rank	Environmental Factors	Median

--This division does not impact us greatly as we are not an area vo-tech school (only 8 colleges in Florida are).
--We do not have vo-tech responsibility in our district.
--Exerting more direct influence on day to day activities.

34 Office of Civil Liberties (1-j) 3.841

Comments

--Affects personnel area only.
--It affects not only personnel areas, but also student admissions and retention.
--Bark worse than bite.

35 U. S. Office of Education (1-e) 3.814

Comments

--Haven't seen same direct effect as other federal factors.
--It does not impact this college as directly as a "high importance" rating would indicate.
--Does not have as much direct influence on me as the other federal factors.
--Based on my experience, smaller impact than consensus.

Medium Importance

36 Student government (5-b) 3.214

Comments

--Student government not a strong body on north campus.
--Student government plays little role.
--A dead issue.
--Very inconsistent, not well informed, petty bickering dominates.
--Active!
--Reflects philosophy of individual institution.
--We must listen to students.
--Non existing interest or influence.
--Our student government is active!

37 Equal Employment Opportunity Commission (1-i) 3.203

Comments

--We are under court order to increase our percentage of minorities.

Rank	Environmental Factors	Median

--We take E.E.O.C. very seriously.
--Reduced hiring reduces major impact.

38 Interpretation of law by Attorney General (2-c) 3.200

Comments

--Since an interpretation of the law is sometimes all that we have to go on when we are dealing with an ambiguous statute, such an interpretation may override all other legal considerations.
--Must be followed!
--Often gives the procedures affecting all programs.
--Most legal rulings take place much closer to local area.
--Decisions mainly political--minimum impact on college.
--State interpreter of the law--maximum importance.

39 College history and traditional practices (15) 3.194

Comments

--As an "outsider" (i.e., new to the institution) I see the often heavy hand of tradition operating every day. Those in the system may not see its operation.
--Our college is very traditional (particularly the executive office). This has a great influence on our programs.
--These are the most difficult to change.

40 Rural or urban setting (7-c) 3.194

Comments

--This may be important in initial school decisions but becomes less important later.
--Rural, sparsely populated areas with conservative orientation and a lack of jobs within geographical area are major problems to consider.
--Inner city campus is different from both.
--Setting affects all aspects of curriculum.

41 The age make-up (7-b) 3.139

Comments

--Community colleges today have an older student body.
--Older people are a significant and increasingly vocal segment of the population.

Rank	Environmental Factors	Median

--Becoming increasingly important with "gray power."
--We have a wide range of ages.
--Very little pressure from any one particular age group.

42 Liberal or conservative orientation (7-d) 3.125

Comments

--Very conservative area!
--Political climate very influential.
--The college's decisions must fit philosophical orientation of community.

43 The local public school system (7-g) 3.115

Comments

--If the college is not the area vocational-technical school, the local school system is extremely important in decision making for these programs.
--We depend on them for our inflow of seniors!
--Must have good relations. They provide many students to us.

44 Public Employees' Relations Committee (2-i) 3.113

Comments

--Minimum importance to us as we are not unionized nor are we involved in collective bargaining.
--Decisions of PERC affect future decisions at this college.
--We have not been influenced by PERC in any way.
--PERC is of maximum importance to an institution which is involved in collective bargaining with employee groups.
--Very important force as generator of rulings on union matters.

45 Prestige (21) 3.031

Comments

--This should be of maximum importance since the administration carries the burden of making decisions.
--Not important in terms of either reward of risk.
--Depends upon personality and needs of administrator.
--High importance, especially at this college!
--This should be immaterial in making decisions. The importance is in making a "right" decision not how popular the decision will be.

Rank	Environmental Factors	Median
46	Congressional appropriations (1-g)	3.031

Comments

--Little effect on this college.
--Most budgets reflect medium amounts of federal dollars.
--We get very little direct federal funding.
--We have not gone after federal money to any significant degree.
--Effects mostly felt in grants and aid areas.
--The life blood of student financial aid programs.

47	Accrediting Professional Associations (3-b)	3.026

Comments

--Their rules and regulations are binding to college.
--Some are demanding but would affect only a small part of total operation.
--The state nursing board exerts influence of maximum importance on nursing program.
--These people have great influence on programs.
--Can lose certification for students if their rules and regulations are not complied with.

48	Special interest groups or individuals on or off campus (9-a)	2.959

Comments

--? ? ?
--Our industry and politics are powerful.

49	Monitoring by local press, radio & T.V. (7-f)	2.900

Comments

--This county is served by Dade stations minimizing localization of monitoring.
--Varies with local situation.
--Good exposure is necessary to the college.
--It is of great significance to a successful program.
--Little influence in decision making.
--Our college service area has 3 TV stations and 2 newspapers always on the go.

50	quid pro quo factor (9-d)	2.838

Comments

--I simply refuse to do this.

Rank	Environmental Factors	Median
51	A collective bargaining organizational drive (4-c)	2.826

Comments

--My high rating is based on actual experience.
--Drive failed on our campus, so low importance.
--Now on campus--maximum importance.
--Would cause our approach to many things to change.
--Have had the experience!
--Need all effort possible to prevent union faculty.
--Union on campus--now in bargaining process.

52	Local civic organizations and service club (9-b)	2.742

Comments

--Little input.
--Not particularly active one way or another.
--Usually more social than politically active.
--Not much pressure here.
--Little involvement in this area.

Low Importance

53	Social Security Administration (1-f)	2.141

Comments

--Greater effect on inner city campus.

54	Alumni (9-f)	2.108

Comments

--Through placement and follow up studies this is becoming increasingly important.
--Could in time be more important.
--We have a very inactive alumni group.
--Changes have been made as a result of input from graduates.

55	Parental pressure (5-a)	2.074

Comments

--Age of students rising, parental pressure declining.
--None or little evidence of parental pressure.
--Still a strong factor at this college.
--Community college parents not involved.
--Community college is close to home and students are living at home!

Rank	Environmental Factors	Median

--Not a great factor if handled correctly by administration.

56 A faculty union (4-b) 2.048

Comments

--A potentially very potent force.
--No union on our campus at present. Should one be formed this factor will increase in importance.
--We do not have a union.
--The faculty union is bargaining everything that it can.
--Faculty union and collective bargaining affect our decision making a great deal whether we want them to or not.

57 Union apprenticeship programs (3-c) 1.847

Comments

--Not involved in this type of program.

58 Student rioting (5-c) 1.265

Comments

--If rioting takes place, nothing else can be of more importance as an expression of students' needs.
--If this were to take place!
--Difficult to relate to in 1977.
--Other student feedback important i.e., "tone" of college newspaper and direct communication with students.
--If this occurs, it would rate maximum importance.

Note: Figures in parenthesis represent item numbers as appearing on Questionnaire III.

APPENDIX G

COMPARISON OF SECOND AND THIRD QUESTIONNAIRE RANKINGS USING COEFFICIENT OF CONCORDANCE

Comparison of Second and Third Questionnaire Rankings
Using Coefficient of Concordance

Factor	Rank		Σ	Σ^2
	Second Questionnaire	Third Questionnaire		
1-a	19	15	34	1,156
b	11	12	23	529
c	26	27	53	2,809
d	14	26	40	1,600
e	35	35	70	4,900
f	53	53	106	11,236
g	39	46	85	7,225
h	12	11	23	529
i	41	37	78	6,084
j	34	34	68	4,624
2-a	6	5	11	121
b	25	33	58	3,364
c	36	38	74	5,476
d	16	14	30	900
e	13	13	26	676
f	15	21	36	1,296
g	2	2	4	16
h	22	22	44	1,936
i	43	44	87	7,569
j	31	23	54	2,916
3-a	28	25	53	2,809
b	51	47	98	9,604

Factor	Rank		Σ	Σ^2
	Second Questionnaire	Third Questionnaire		
c	57	57	114	12,996
4-a	23	30	53	2,809
b	56	56	112	12,544
c	49	51	100	10,000
5-a	54	55	109	11,881
b	37	36	73	5,329
c	58	58	116	13,456
6	29	32	61	3,721
7-a	24	17	41	1,681
b	44	41	85	7,225
c	40	40	80	6,400
d	42	42	84	6,724
e	18	18	36	1,296
f	50	49	99	9,801
g	45	43	88	7,744
8	1	1	2	4
9-a	47	48	95	9,025
b	52	52	104	10,816
c	32	28	60	3,600
d	48	50	98	9,604
e	27	31	58	3,364
f	55	54	109	11,881
10	17	19	36	1,296
11	20	24	44	1,936

Factor	Rank: Second Questionnaire	Rank: Third Questionnaire	Σ	Σ^2
12	4	4	8	64
13	30	20	50	2,500
14	33	29	62	3,844
15	38	39	77	5,929
16	7	7	14	196
17	5	6	11	121
18	8	8	16	256
19	3	3	6	36
20	10	10	20	400
21	46	45	91	8,281
22	9	9	18	324
23	21	16	37	1,369
ΣX	1711	1711	$\Sigma X = 3422$	
			$(\Sigma X)^2 = 11,710,084$	
			$\Sigma(\Sigma)^2 = 265,828$	

$$S = \Sigma X - \frac{(\Sigma X)^2}{n}$$

$$W = \frac{12S}{K^2(n^3-n)},\ K=2,\ n-58$$

$$W = .98$$

$$F = \frac{(K-1)W}{1-W} = 64.7$$

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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